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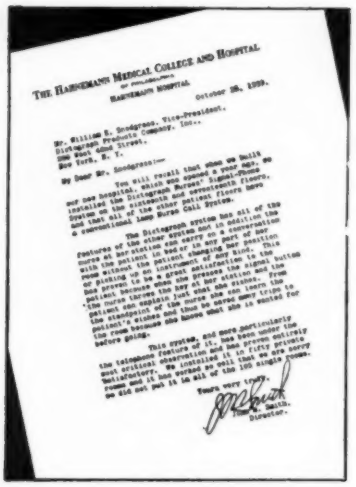

THE HAHNEMANN MEDICAL COLLEGE AND HOSPITAL
HAHNEMANN HOSPITAL

October 28, 1929.

Mr. William S. Snodgrass, Vice-President,
Dictograph Products Company, Inc.,
220 West 42nd Street,
New York, N. Y.

My Dear Mr. Snodgrass:—

You will recall that when we built our new hospital, which we opened a year ago, we installed the Dictograph Nurses' Signal-Phone System on the nineteenth and seventeenth floors, and that all of the other floors have a conventional Lamp Nurse Call System.

Features of the Dictograph system has all of the nurse at her station to any part of her position without the patient leaving her room. This has proved to be a great convenience and time saver, because when the key under the signal button is pressed the nurse at the station may talk to the patient and hear what she says, so that she knows the patient's wishes and can attend to them before going.

This system, and more particularly the telephonic feature of it, has been under the most critical observation and it has proven entirely satisfactory. We installed it in fifty private rooms and it has worked so well that we are sorry we did not put it in all of the 185 single rooms.

Yours very truly,

Director.

Under "Critical Observation"

The New NURSES' SIGNAL-PHONE SYSTEM

is proving its superiority in the country's leading hospitals

St. Francis Hospital
Hartford, Conn.

October 7, 1929.

The Dictograph Products Co., Inc.
220 West 42nd St.
Hartford, Conn.

Gentlemen:—

It is our pleasure to highly recommend the use of "The Dictograph Signal-Phone" for hospitals. After a long trial we have found that it is most satisfactory to the patient and enables the nurses to give very efficient service.

We shall be glad at any time to have our hospital friends call and see the system worked out.

Respectfully yours,
THE ST. FRANCIS HOSPITAL

"THIS system . . . has been under the most critical observation and has proven entirely satisfactory. We installed it in fifty private rooms and it has worked so well that we are sorry we did not put it in all of the 185 single rooms", writes Mr. J. M. Smith, Director of The HAHNEMANN HOSPITAL *of Philadelphia . . . "After a long trial we have found it most satisfactory", is the verdict of* ST. FRANCIS HOSPITAL *in Hartford . . . Wherever the* DICTOGRAPH *Nurses' Signal-Phone System has been installed it has been a notable factor in eliminating wasted time in nursing procedure and in promoting better service to patients.*

THE new Nurses' Signal-Phone provides, in addition to the customary features of door lamps, corridor lamps and signals at the nurses' station, a unique telephonic contact between patient and nurse made possible by the super-sensitive Dictograph microphone and "soft speaker."

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on the Nurses' Signal-Phone tells which patient is calling. In addition an audible signal is provided in the form of a soft-toned buzzer. The nurse lifts the receiver on her Signal-Phone, raises the key under the signal, and speaks to the patient.

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, Administration and Maintenance of Hospitals and Sanatoriums.

Vol. XXXV *August, 1930* No. 2

Should Hospital Staffs Strike?

By S. S. GOLDWATER, M.D.
New York City

THAT the American Medical Association means business, in every sense of the word, is implied by a series of proposals dealing with the economic relations between hospitals and physicians that were presented at the Detroit convention of the association on June 24. The remarks made were unmistakably militant in tone and create the impression that aggressive action by the medical profession is necessary in order to prevent the unjust exploitation of physicians by both private and public hospitals. Here are the proposals as they appeared in the newspapers:

What the Proposals Set Forth

1. When a hospital offers its facilities to a mixed clientele, pay, part-pay and pauper, the distinction between the sources of those facilities should be recognized. The physical equipment and service are of general public origin, and their uses may be sold or given away in the discretion of lay boards, but the professional facilities are, and always must be, the contribution of the medical staff as individuals, and cannot become in any sense the property of the institution.

2. When a hospital is owned and operated by government and supported by taxation, to which the medical profession contributes its due proportion, medical attendance should be paid for by taxation, along with all the other facilities supplied by the institution.

3. No hospital, instituted and supported by public philanthropy or community cooperation of any kind, should be permitted to increase its revenues and to reduce its financial burden upon the public by any system of collecting fees for medical attendance, and thus engaging in the corporate practice of medicine.

4. **The membership of the association should be guided by these principles in accepting posts on the staff of hospitals, and should refuse to support by the contribution of their services, or by the references of their patients, any institution violating them.**

Of the four numbered declarations the first three deal with basic principles, the acceptance of which was demanded by the speaker as of right. The fourth declaration advises members of the association to strike against any hospital that refuses to accept and apply the stated principles.

One wonders whether the actual conditions of medical employment in many or any hospitals are so harsh as to justify a staff strike! But perhaps the A. M. A. merely feels that hospital officials are displaying questionable zeal in their efforts to expand their activities, and that it is prudent to call a halt now in order to forestall abuses of which physicians would be the chief victims. In either case, further consideration of the stated "principles" and their practical application would seem to be in order.

The "Principles" Analyzed

It is, of course, not quite accurate to say of a community or philanthropic hospital that offers its facilities to a mixed clientele, that its physical equipment and services, meaning presumably all of the services of the hospital other than the professional activities of physicians, "may be sold or

given away in the discretion of lay boards." A hospital is frequently bound by legal and other restrictions that determine its course of conduct regardless of the judgment of its governing board. Voluntary hospitals must not only conform to the terms of their charters, but must observe relevant state laws and such restrictions as are laid upon them by the terms of conditional gifts. But these are matters in which the A. M. A. was not particularly interested when it presented its proposals. What interests the association is the reasonable regulation of professional services; the question of the profitable resale, by a benevolent medical organization, of paid medical services, that is, the "corporate practice of medicine," is dealt with in another of the proposals that calls for separate discussion of the subject.

Physician's Service Is Voluntary

If physicians were actually compelled against their will to work in the free wards or dispensaries of charitable institutions, we should at once accept the statement of the A. M. A. as a justifiable protest against involuntary servitude. But no physician can be assigned either to ward or to dispensary duty who has not voluntarily sought or accepted such an appointment. Whoever seeks or accepts a hospital assignment does so, one must suppose, either as an act of benevolence, or in order to obtain some real or imagined benefit. In some instances, both motives may be involved. But whatever the motive, the act is certainly voluntary. The physician who joins a hospital staff does, of course, agree, either expressly or by implication, to conform to the rules of the institution. If the rules are not to his liking, he is free to withdraw. The A. M. A. not only concedes the existence of this freedom, but directs its members to refuse to work for any hospital that undertakes to dispose of their services in a manner of which they do not approve (or of which the association disapproves, which, we may assume, for practical purposes amounts to the same thing).

Can any hospital survive as an orderly and efficient institution in which each physician chooses his patients individually? Is it conceivable that a physician can be permitted to enter a ward and say, "This patient I will treat; that one, in my opinion, is unworthy and I will have nothing to do with him?" Surely the A. M. A. cannot intend to sponsor a doctrine of this kind, which would put an end to all orderly hospital procedure. What the A. M. A. means is, I take it, that rules governing the admission of patients to free wards or to free dispensaries must not be made by lay boards without medical consent. Coming from so responsible an organization as the A. M. A., this is a challenge that the hospitals must meet.

The hospitals will readily grant the right of their staffs to fair treatment. But what is fair treatment? According to the A. M. A., fair treatment appears to require medical participation in administration or dual hospital control, and the hospitals cannot very well set aside this claim unless they can satisfy the medical profession and the public that lay control is the better system.

Free medical service in the hospital, the proposals declare, is the individual contribution of the physician. This is undeniably true. A physician is under no sort of obligation to render such service against his will. What we wish to know is this: Assuming the willingness of the physician to contribute a certain amount of free service to the poor and to use the hospital as the vehicle of his contribution, how can the hospital be best administered—by a lay board, or by a mixed body representative of the hospital's character as a partnership in philanthropy of lay contributors and physicians? I purposely omit the third alternative, a medical board without lay representation, because the A. M. A. concedes the right of laymen to administer that part of the facilities of the hospital which is the contribution of the public, namely, plant, equipment and nonprofessional service, all of which are supported by charitable donations.

Lay Control and Its Advantages

I, for one, favor lay control, naturally under suitable conditions, some of which I shall discuss. I favor lay control because:

1. Properly chosen lay boards are familiar with the principles and methods of business administration; physicians usually are not.

2. A lay board rightly constituted inspires the confidence of those who are able to make generous contributions toward the support of hospitals.

3. The lay trustee has no personal ax to grind; as against this, the physician's personal interests are bound up with his hospital prerogatives, for his colleagues are also his competitors.

4. The lay trustee is not hampered by professional etiquette; the physician is. (This may seem to conflict with the preceding paragraph, but the judgment of physicians is apt to be warped by both personal interest and professional etiquette—sometimes by one, sometimes by the other.)

Looking back over the last twenty years of

hospital development in the United States, one observes that under lay control, hospitals have made rapid progress in building up their financial resources, in winning the confidence of the public, and—please mark this!—in adopting minimum professional standards recommended by competent medical groups. Moreover, many lay boards have gradually learned to understand the highly complicated nature of hospital administration and its need of competent leadership; that is, they have come to recognize the importance of separating hospital administration from clinical medicine—a distinction many physicians do not grasp—and are prepared to follow qualified leadership.

Who Should Guide the Hospital?

Lay hospital administration must, of course, recognize, both in principle and in practice, the rights of medical men, and when I speak of the rights of medical men I mean not only the rights of the staff but the rights of the profession in general, for the good and bad effects of hospital administration are felt far beyond the hospital walls. To starve the medical profession, to deprive it of opportunities for intellectual growth or for the development of technical skill, to deny to physicians such income as is necessary for their adequate and reasonable support or to restrict hospital privileges to a selected few, is to diminish the usefulness of a professional group upon whose welfare the progress of mankind largely depends. It is fortunate that so many examples can be cited (this, of course, is scarcely the place for individual references) of lay boards that, under suitable direction, are supporting hospital programs that are scientifically, socially and ethically sound. I do not suggest that any lay board can formulate such a program unaided, and no intelligent lay board attempts to do so. In the administration of a hospital the voice of medical men must be heard—not the voice of one medical man or of a small inside group, but the voice of the entire profession, both staff and nonstaff.

Every encouragement should be given to staff members to work for and insist upon sound organization, perfect equipment, adequate laboratory service, ample nursing support and fair treatment generally not only for themselves but for their colleagues beyond the walls. In the actual administration of a hospital, however, the demands of the staff are often hastily made and the needs of individual departments unduly emphasized. Hospitals are compelled to face demands that are contradictory and that call for careful appraisal and adjustment. An administrator who is familiar with the technique, the tendencies and the changing language of modern medicine, who has the executive gift, who knows the hospital's actual and potential resources as well as its needs and who occupies an independent position, is best qualified to guide the hospital in these circumstances.

The Administrator Must "Administrate"

I do not believe that any hospital executive, certainly not in a hospital of any size, can function properly who is not free to devote all his time and energy to the study of hospital administration to the rigid exclusion of other business or professional interests, and who moreover is not independent of, however well disposed he may be toward, the hospital staff. To thrust administrative responsibilities on men who are immersed in the study and practice of medicine is to invite confusion and disaster. If the administration does not suffer the clinical service will, for no clinician who is true to the demands of his calling can give to the problems of hospital administration, truly appalling nowadays in their number and complexity, the time and thought that these problems demand.

How Clinicians Can Best Serve

The contribution of clinicians to hospital administration can best be made through suitable staff organization and the creation of an appropriate mechanism for dealing with administrative problems that have a medical bearing, namely, by the creation of coordinated and interlocking lay and medical committees competent to consider these problems from all angles. The assignment of appropriate matters to such committees places upon the staff certain obligations with respect to administrative affairs, but the burden is quite different from that which would flow from responsible membership in a dual board of trustees. The work of such joint committees reacts beneficially upon the minds of both groups, and, in a hospital where mutual good will prevails, automatically prevents lay hospital boards (consisting, as I regard them, of conscientious and reasonable men, not of malicious and irresponsible tyrants) from disregarding legitimate medical interests. No group of lay trustees, accustomed to confer with a vigorous and representative staff committee, runs the slightest risk of assuming that the gratuitous services of the staff are the "property of the institution," or that hospital duties can be assigned arbitrarily to physicians without regard to what is reasonable and just.

Have I proved that under a lay hospital board

the rights of the staff are certain to be safeguarded, or, coming down to the particular point at issue, that the staff will not be compelled to give gratuitous service to undeserving patients? Perhaps not, but I have shown or tried to show that there is a reasonable presumption, at least, that with proper organization, the lay controlled hospital is likely to progress in an orderly manner and that the staff of such a hospital can freely express its views and assert its rights without sharing the burdensome responsibilities of hospital administration, for which few practicing physicians have the time, the inclination or the capacity.

The Board and the Staff Not in Conflict

It is not as if the lay board and the medical staff were engaged in competitive conflict. The average lay board, inspired as it is by sound ideals of social service, is quite as eager as the staff to prevent the fraudulent use of the hospital's facilities. In some two hundred or more hospitals whose administrative procedure I have had occasion to examine closely during the past twenty-five years, the reckless use of plant, equipment or medical service would be regarded as bad practice and would not willingly be tolerated; these are typical community hospitals in many states. If applicants for free treatment in some of these hospitals are not routinely subjected to a rigorous financial inquisition, the reason may be that when systematic financial investigations have been made in the past they have revealed—as in my own intimate administrative experience—only a negligible percentage of misrepresentation and fraud. That physicians should not be victimized by unscrupulous patients is obvious, and where physicians question the adequacy of the protection that is accorded them by the hospital, they have every right to ask the hospital to justify its methods; this, however, can be done without revolutionizing hospital administration, to its probable detriment, by forcing unaccustomed responsibilities upon harassed physicians, and without spreading alarm, by threats of a walkout, among those who are dependent upon charitable institutions for their medical care.

The second proposal that we are considering demands that medical attendance in hospitals which are supported by taxation should be paid for along with all of the other facilities the institution supplies, and should not be gratuitous. This is a question that cannot be disposed of satisfactorily by a declaration so simple and sweeping.

It is true that the physician as taxpayer contributes to the support of the government owned hospital in the same proportion as other citizens, and I agree that the government is unwarranted in demanding from the physician any sacrifice it does not require of his fellow citizens. Does it follow that physicians may not in their own discretion contribute their services gratuitously to indigent patients in public hospitals in the same manner in which they contribute their services to this class of patients in private charitable institutions? There is, of course, no obligation to contribute this service in either case, and it is obvious that whether the contribution of free professional service is made through a public or a private institution, it is a contribution different in kind and notably greater in degree than that which the ordinary citizen makes whether as a taxpayer sharing in the support of a public institution or as a voluntary contributor to the funds of a private hospital.

I recently made an estimate of the money value of the services of the medical staffs of several typical voluntary hospitals, each having a capacity of about 300 beds, and found that the value of the physicians' free service exceeded the total cash contributions. A similar study of the activities of public institutions would, I think, place the medical profession before the public in the light of a socially minded group contributing services of enormous value to every community in which a municipal hospital exists.

The Problem of the Needy Patient

It is, nevertheless, highly improbable that the municipalities of the United States will immediately put the visiting staffs of their hospitals upon a salaried footing, and the question therefore is whether some thousands of medical men should immediately cease their ministrations to the poor in municipal hospitals, as the speaker demanded, or whether they should carry on. I have little doubt that they will continue to serve the poor as they have in the past, although they may wish to reserve the right to claim compensation for service in the future to the extent that such claims can be not only defended as reasonable and just but practically enforced by additions to the tax rate. I cannot avoid the conclusion that the speaker acted impulsively and without due consideration in demanding the cessation of all voluntary medical service in public institutions.

I respectfully submit (a) that so far as any voluntary tender of medical service is concerned, the needy patient in a public institution is quite as deserving as the needy patient in a private hospital—indeed, he is frequently the same pa-

tient; (b) that the responsibility of the community to provide medical service for the poor (current social ethics assumes the existence of this responsibility) extends equally to all needy patients regardless of their assignment to public or private institutions; (c) that if, therefore, the A. M. A. forbids free medical service in municipal institutions it must logically condemn similar service in private institutions; (d) that since a large proportion of the population is unable to pay for professional service in hospitals, the extensive employment of paid physicians for this service would increase enormously the number of salaried physicians and this would facilitate the development of a full fledged system of state medicine to which the A. M. A. is opposed; (e) that while a physician is free to give or withhold gratuitous service to hospital patients, he forfeits this right when he enters into a contract with a municipal hospital to serve as its salaried employee.

The Effect on University Hospitals

The idea that is embodied in the third proposal is that profiteering in professional medical services, described in the proposal as "engaging in the corporate practice of medicine," is unethical and intolerable. Coupled with the association's suggestion to its members to sever connections with hospitals "instituted and supported by public philanthropy or community cooperation of any kind" which engage in this practice, the practical effect of the adoption of this principle would be to cripple the leading university hospitals of the country by depriving them of the services of full-time salaried professors who by the treatment of private patients earn fees which the university hospital collects, and to deprive many voluntary hospitals of staff members now employed on a salary basis, the laboratory groups especially.

A Paradoxical Position

The wording of the proposal, oddly enough, is such as to leave untouched medical organizations which are not supported by "public philanthropy or community cooperation," but which nevertheless employ physicians in large numbers upon terms that leave a margin of profit to the employing organization. Do not such private organizations practice "corporate medicine"? Does the A. M. A. propose to sanction profiteering by medical entrepreneurs whose dominant motive is personal gain, but to condemn and if possible to destroy philanthropic organizations that reserve for public uses and not for private gain whatever margin there may be between the salary, let us say, of a pathologist, a radiologist, a physiotherapist, an anesthetist or a resident physician, and the fees that are collected in payment for his services?

If it is right and proper for a physician to sell his services for a fixed sum to a group of physicians banded together for profit, why may he not make an arrangement of the same kind with a university or a community hospital which offers him equal compensation for similar service? If any distinction is to be made between these two groups, it would seem that greater freedom of action should be allowed to an institution that applies its profits to the advancement of scientific medicine or to some other social end rather than to the employing group, whether it be an industrial corporation or a private medical partnership, which pockets the institution's proceeds as private gain.

The proposal contemplates that the A. M. A. should embark upon a course that is not so simple as it must have looked to the speaker. The association is opposed to state medicine, yet the proposal recommends the immediate employment of thousands of physicians as salaried employees in municipal hospitals. Abandoning its traditional ideals of voluntary social service—ideals which, I grant, involve considerable self-sacrifice on the part of the profession—the Detroit speech sounds a commercial note that seems almost too sordid to be accepted as a true reflection of professional sentiment.

Individualism or Trade Unionism?

Apart from any question of the traditions of the profession, the course of conduct that is advocated in the proposals is fraught with danger to the material interests of the profession; for if the physicians of America frankly take their stand upon a platform of commercialized in contradistinction to humanitarian medicine, they must be prepared to bargain, and must expect to be bargained with relentlessly. Arrayed against them as prospective employers will be those who control the machinery of modern medicine: the hospitals, municipal and voluntary; the clinics, public and private, and the commercial and noncommercial laboratories. If a conflict ensues, where will the advantage lie? The history of modern industry shows that it is only by banding together that workers who lack the tools of their trade can exact reasonable wages from the employing class. How will the American physician, a confirmed individualist who rebels at the mere thought of being coerced into group employment, act when he finds that he is engaged in an industrial dispute in which his sole means of protec-

tion is group organization and mass action—in a word, the weapons and the tactics of the trade union? Is it conceivable that American physicians can be effectually banded together for such a struggle? Or, weakened by their stubborn individualism and their incurable idealism, will they be an easy prey to the exploiter?

The president's speech deals in far too arbitrary a manner with complicated questions that are of vital importance to the hospitals, the medical profession and the public. It is to be hoped that the association will go into these questions more thoroughly. Meanwhile it seems unlikely that there will be a general hospital walkout for reasons which the proposals declare to be adequate, but which seem to me to be most inconclusive.

Policy of English Hospital in Fixing Maximum Fee Is Criticized

The policy of the Norfolk and Norwich Hospital, Norwich, England, to fix a maximum fee of fifteen guineas in its paying wards is the subject of criticism by a surgeon writing in a recent issue of *The Hospital*. Such a policy, says the surgeon, either excludes the man who could easily and willingly pay double, or it admits him and deprives the surgeon of his legitimate earnings.

In explaining his objections to the Norfolk and Norwich scheme he says, "The expenses of a patient in a hospital naturally fall under two headings — maintenance and treatment. Maintenance is the simpler of the two, being a question of costing and bookkeeping only. Medical treatment is not so simple, since the fees charged depend in large part upon the reputation and skill of the practitioner. For thousands of years the fees of the doctor have been related to the patient's income, and we have a commercial proposition differing from that in every other business and profession.

"When the general public paid for maintenance and gave this gratuitously to the patient, the doctors served the institution for nothing. When the patient paid part of the cost of his treatment there was no reason why this should not have been divided between the hospital and the doctor, although as a rule, the medical staff waived its share. This, it must be remembered was a concession on the part of the staff. When, however, the patient pays the whole cost of his maintenance, with a margin of profit added, the doctor naturally feels entitled to his fees.

"Up to quite recently hospitals have been corporations with heavy liabilities who possessed the plan to supply an article for which the market was clamoring, thanks to the good will of their business, built up by their gratuitous work.

"The failure to exploit this market has been due to nothing but a foolish sentiment. It is pretty generally considered to-day that a philanthropic enterprise which pays dividends is better than one supported by voluntary contributions: as much better as it is better to find a man a job than to give him doles.

"Paying wards, therefore, should be faced as a business proposition, conducted, of course, on the highest scale of commercial integrity, and not in a half-hearted, half-shamed spirit. The medical staff's earnings must not be held as in any way derogatory to their dignity.

"Some would hold that it is beneath the dignity of the profession to take a small fee from a poor man. If it entails hardship to him, this is true; but if the size of the fee is generously graded to meet the poor patient's means, the surgeon loses no particle of dignity even if he does laparotomies for eighteen-pence.

"It is a fundamental mistake that the medical staff should be shy about taking fees even on the lowest scale. The surgeon always has ample opportunities of giving sympathy and kindliness for which payment can only be made in kind.

"Hospitals do fix, and must fix, income limits; but a little experience of paying wards soon shows one very interesting phenomena.

"Many patients, whose incomes are well within the 'general ward' limits, have friends or relatives who are only too willing to pay for their treatment in paying wards, provided that this payment is comparatively modest. It must be remembered, therefore, that many whose incomes fall well below the fixed limits for general wards are suitable inmates of paying wards.

"Probably the question will be solved ultimately by insurance, but it is doubtful whether there is anyone who is as yet sufficiently experienced to be able to plan a scheme of insurance that will not be open to grave objection."

What the Annual Census of Mental Patients Shows

Patients entering state insane hospitals for the first time increased 6.6 per cent in 1927 over the year 1926, according to a statement by William M. Steuart, director, Bureau of the Census.

The figures, the first of a series of annual reports on mental patients to be issued by the bureau, show that "dementia praecox" led in the number of sufferers, and the number chargeable to "alcoholic" psychosis increased from 1,819 in 1922 to 2,656 in 1927.

The total number of patients in state hospitals at the beginning of the year 1928 was 264,226, and the number of first admissions during 1927 was 56,288, the report shows. The 163 hospitals entering the survey in 1926 had 98.8 per cent of the patients present in state hospitals at the beginning of 1928 and had 97.7 per cent of the number of first admissions during 1927.

The psychosis called "dementia praecox" leads the list of mental patients, with the number of 12,441, and is followed by "manic depressive" psychosis (a form of melancholia) with a total of 7,828, and "senile" psychosis (generally applicable to old people) with a total figure of 5,592. In 1927 the figures for "alcoholic" psychosis were 2,656, as compared with 1,819 in 1922.

For the year 1927, there were more patients admitted for the first time from the Pacific region than from any other geographical area, the report states, having 70.4 patients per 100,000 population, as compared with 59.7 patients per 100,000 from New England. These two areas were followed, in order, by the middle Atlantic and south Atlantic.

The annual census of mental patients has been inaugurated by the Bureau of the Census in response to the urgent request of the American Psychiatric Association and the National Committee for Mental Hygiene.

The Baker Memorial—A Description of Its Services

By FREDERIC A. WASHBURN, M.D.
Director, Massachusetts General Hospital, Boston
and
COOLIDGE, SHEPLEY, BULFINCH and ABBOTT
Architects, Boston

THE Baker Memorial building is situated well in the interior of the grounds of the Massachusetts General Hospital, Boston, and is approached through the main entrance in the Moseley Memorial building for administration, which has connecting corridors to the Baker Memorial. Because of this entrance and the arrangements of different visiting hours to the Baker Memorial patients it makes available the waiting room in the Moseley Memorial for visitors to the Baker Memorial.

In order to reduce dark inside corners and to keep the building from spreading, it was planned in the shape of a T, with the upright stem running east and west and the elevators placed in the two inside corners. This arrangement means that 70 per cent of the perimeter is exposed to the sun at some hour of the day. This space is developed for patients' rooms, the remaining 30 per cent being needed for baths, toilets, utility rooms and floor kitchens. On a clear day every patient has sun in his room a portion of the time. The building is eleven stories high with the basement well out of the ground and a twelfth or roof floor for the use of patients.

The new Baker Memorial, Boston.

The building throughout is of the most modern type of fireproof construction. The exterior is of eastern waterstruck brick with limestone trim. A modification of the Renaissance type of architecture has been used. The sash are of a typical double hung type. In most of the rooms the sash are doubled to provide better control for ventilation and for the elimination of drafts and dust. In all cases where the sash are doubled the inner sash have heavy dividing muntins to give a greater sense of security to the inmates of the room. The main cornice is of heavy copper treated by a sanded process to imitate the general limestone trim. This is surmounted by a protecting wrought iron balustrade which affords adequate protection to patients using the roof.

All floors are of reinforced concrete construction supported on a structural steel frame. Interior partitions are of terra cotta. Finished floors in general are of rubber tile. Many ceilings in the building are treated with acoustical materials to control sound and reverberation as much as possible, a trouble that is difficult to overcome in modern fireproof hospital construction. Door frames are of the typical flush steel type. Flush paneled wood doors are occasionally used, although most of the doors are paneled. Most of the hardware throughout is painted. Where painting is not practical exposed surfaces are sand blasted to eliminate the necessity for metal polishing.

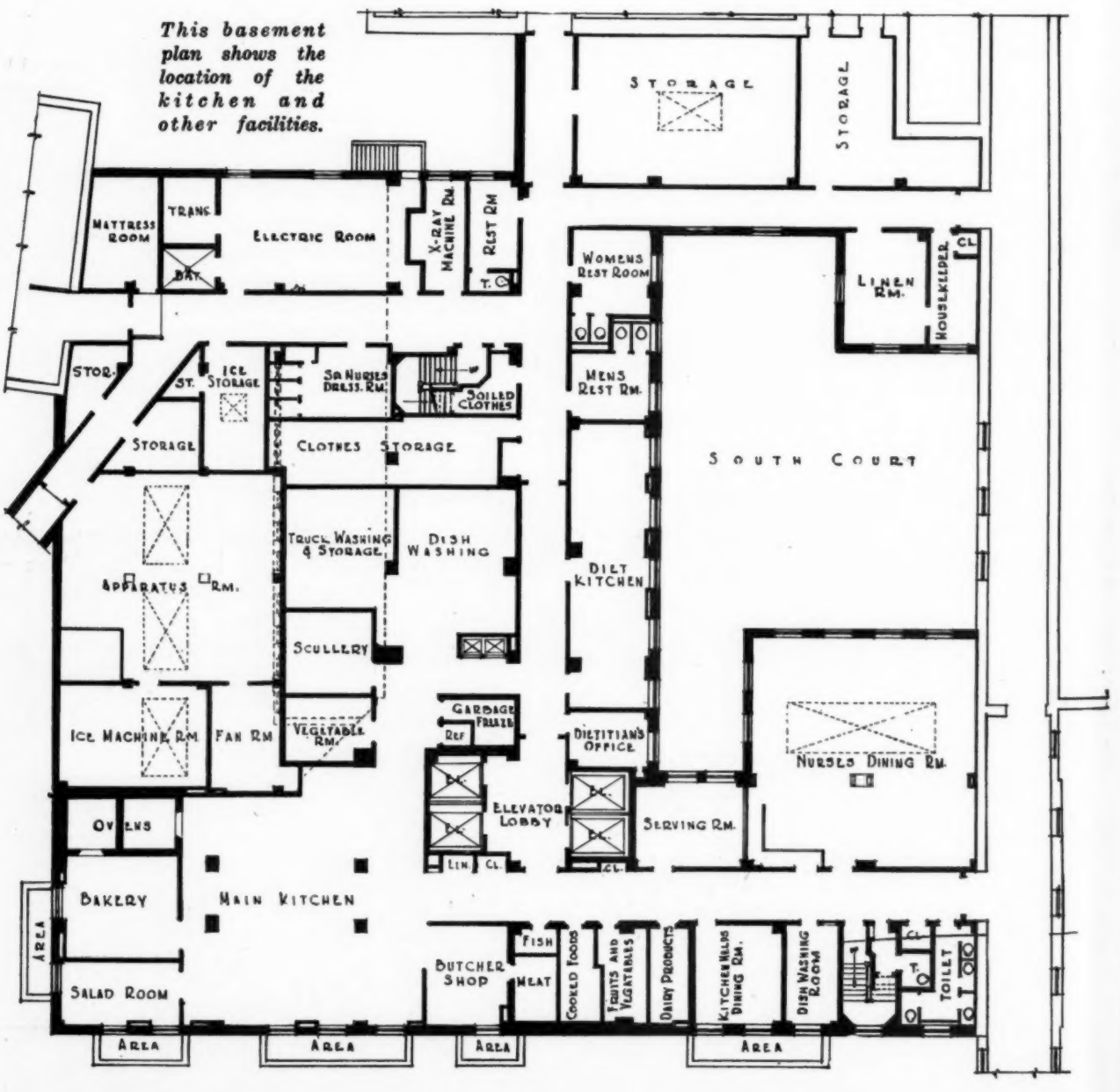
Every effort has been made to eliminate dirt and to keep dust from accumulating around cor-

ners and projections. Another important detail is the protection of all plaster corners with flush steel guards, and in many cases, as at stair wells, the ceiling corners are protected in the same way.

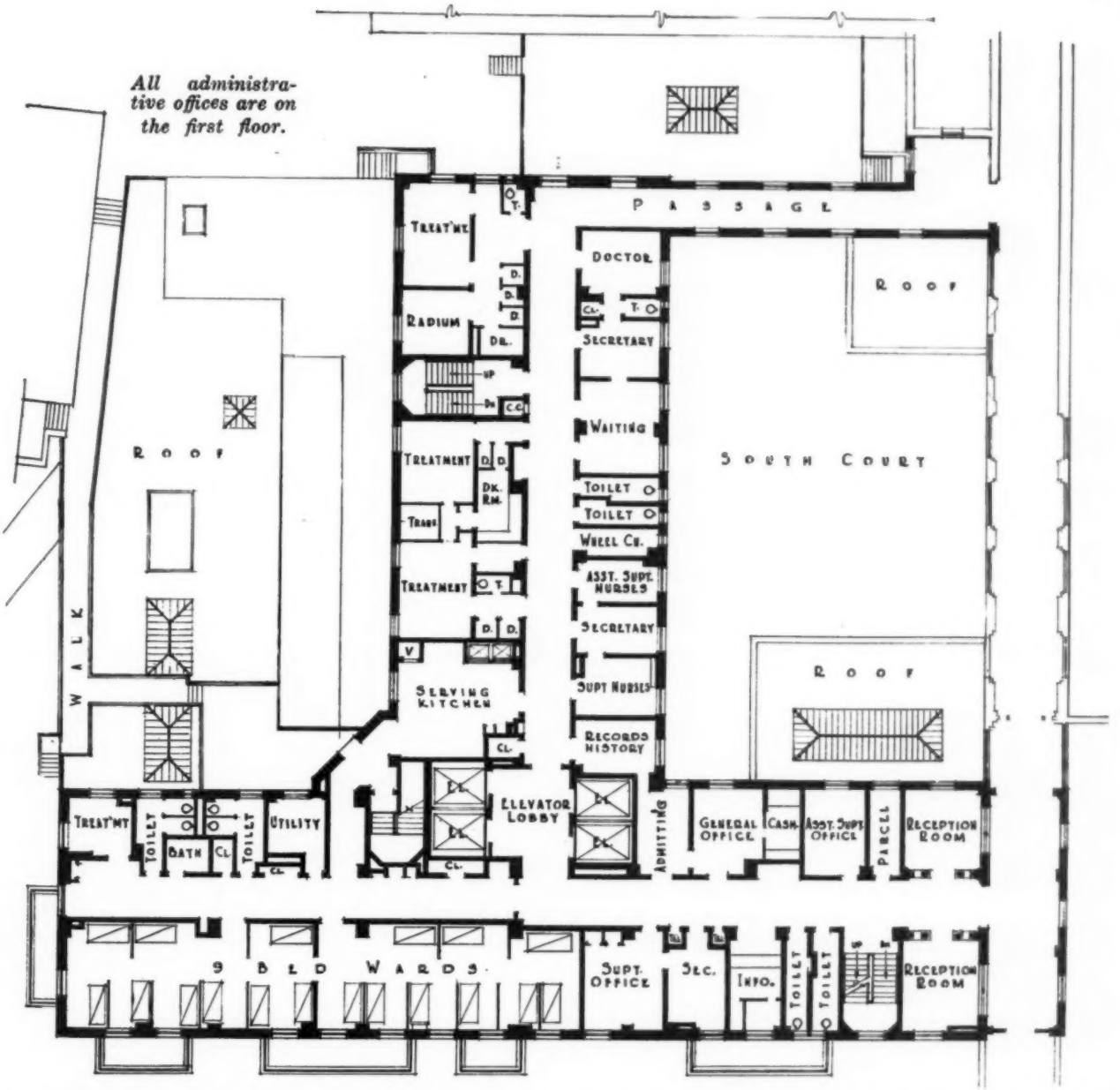
At the entrance to the Baker Memorial are small reception rooms, designed primarily for the use of those who deal with the business organization of the hospital whose offices are just beyond. Here may be found the information clerk, the admitting officer who is also an assistant to the director, a bookkeeper, a cashier, an assistant director in charge of the building, his secretary, a record clerk and an assistant superintendent of nurses.

Beyond the administration offices will be found two nine-bed wards, one for men and one for women. These are arranged so that any bed may be screened from the other beds by curtains. The east wing on this floor is provided with complete x-ray equipment which is for the exclusive use of patients in this building. The wing extends by a connecting corridor to the enlarged pharmacy in the main hospital, thus providing direct service to the Baker Memorial.

In the basement are the main kitchen, the refrigerators, the pastry room, the bake shop, the salad preparation room, the scullery, the vegetable room and a storage place for food trucks. Cleaning and heating are provided here for the food trucks, into which the food is served in bulk and sent by elevator to each floor kitchen where connection is made to a heating outlet and the food is kept hot while it is being served to the patients. Dishwashers are provided in the space adjacent to the kitchen and this space is connected with the floor kitchens above by two elec-



This basement plan shows the location of the kitchen and other facilities.



tric dumb-waiters which bring the soiled dishes down and take the clean dishes back to the floor kitchens. Across the hall from the main kitchen is the diet kitchen where all special diets are prepared. These are sent to the floor kitchens by means of dumb-waiters.

A dining room with separate serving and dish-washing facilities is provided for the nurses who are on duty in this building. Another dining room is provided for the kitchen help.

There are several rest rooms for men and women domestics and women clerks, with a linen room and office for the housekeeper. A room for checking patients' clothes is provided as is also a dressing and toilet room for the use of special nurses.

The basement extends outside of the walls of the main building. Here are rooms for machinery and apparatus consisting of an ice plant, hot water tanks, pumps for increasing water pressure, pumps for producing negative air pressure on the patients' floors, and other equipment.

Two rooms are provided for additional storage space to the general stores and to the pharmacy stores, which connect by a corridor to the general store in the main hospital, so that service can be provided by a slight increase of the central store personnel.

We have now looked over the first floor and basement. We will next take one of the elevators and journey to the roof. The elevators by which we travel are provided with all the modern safety devices of which a special feature is the automatic leveler that will stop the elevator exactly level with the floor regardless of load. This is especially useful in taking patients to and from the

operating rooms since it allows a bed to be wheeled in or out with no more disturbance than on a level floor.

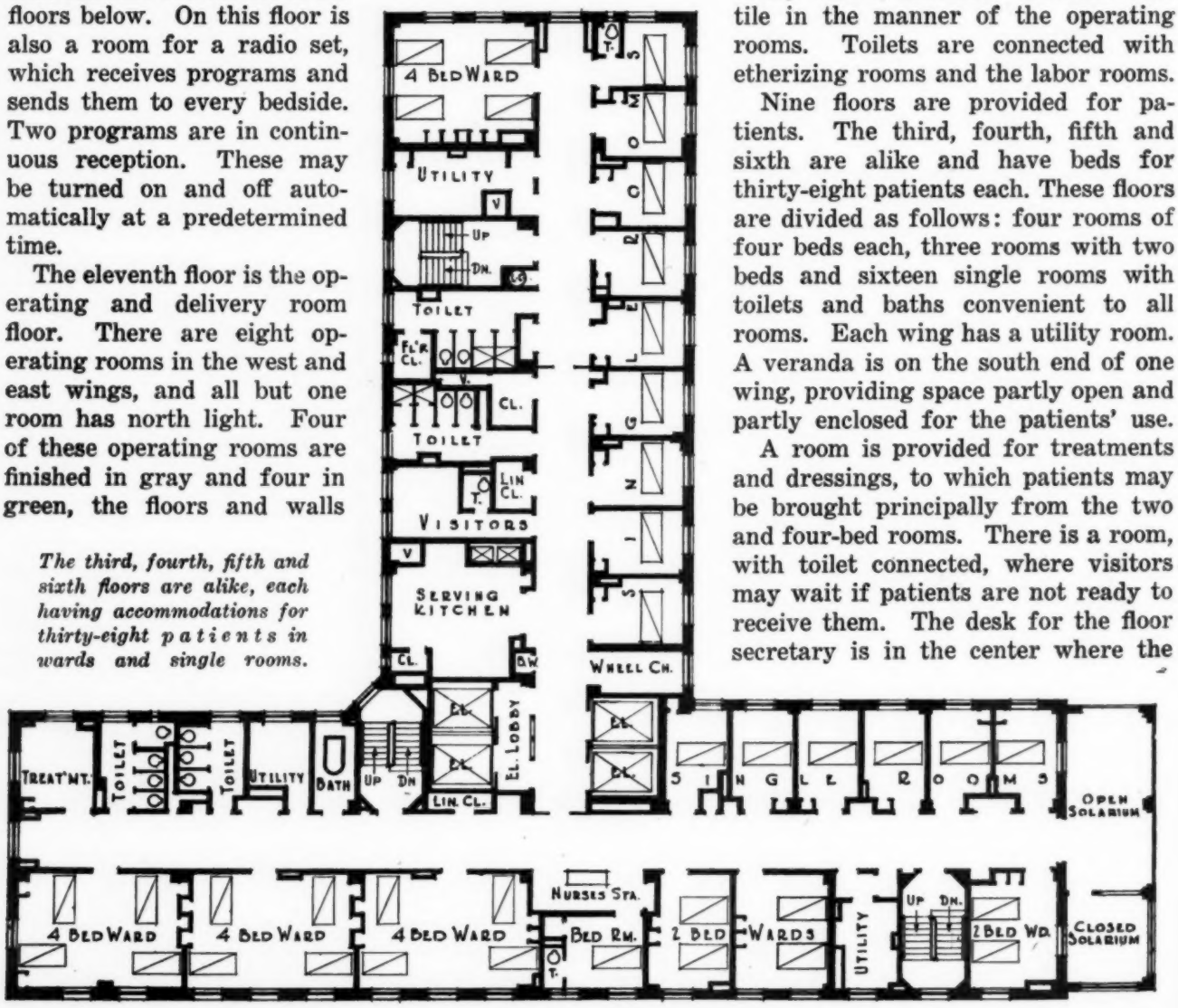
From the penthouse on the twelfth floor a service stairway leads to two other floors which contain the elevator machinery. This floor is equipped with large open roof spaces on each of the three wings of the hospital. These spaces are floored with tile and offer a view of the Charles River basin to the hills of Roxbury and Brookline to the westward, toward the east and north over the city and down Boston Harbor with the Bunker Hill Monument and the Charlestown Navy Yard in the foreground. Beacon Hill topped by the state house rises to the south.

This floor is equipped with the necessary service rooms so that patients may be kept there overnight if it seems desirable. Within the enclosed portion are a floor kitchen, a utility room, toilets, a smoking room, rooms for a barber, a manicurist and a chiropodist and rooms for fans that exhaust the air from the floors below. On this floor is also a room for a radio set, which receives programs and sends them to every bedside. Two programs are in continuous reception. These may be turned on and off automatically at a predetermined time.

The eleventh floor is the operating and delivery room floor. There are eight operating rooms in the west and east wings, and all but one room has north light. Four of these operating rooms are finished in gray and four in green, the floors and walls to the ceiling being finished with tile. Several of these rooms may be darkened by means of curtains that are raised from the box containing them on the window sill. One operating room is equipped with an x-ray machine for the use of cystoscopy, for the setting of fractures and for other operations for which the x-ray may be needed. A dark room has been provided across the hall for the prompt development of these films. The usual wash and locker rooms are provided for surgeons, nurses and house officers. There is a small rest room for the doctor who may be waiting on an obstetrical patient. There are also a locker and a wash room for visiting surgeons. There are etherizing and recovery rooms, an instrument room and an instrument wash room, a sterilizing room and a room containing a large dressing sterilizer, a work room for the preparing of dressings and a space set aside for stretchers and wheel chairs. In the south wing are three labor rooms and three delivery rooms, the latter finished with tile in the manner of the operating rooms. Toilets are connected with etherizing rooms and the labor rooms.

Nine floors are provided for patients. The third, fourth, fifth and sixth are alike and have beds for thirty-eight patients each. These floors are divided as follows: four rooms of four beds each, three rooms with two beds and sixteen single rooms with toilets and baths convenient to all rooms. Each wing has a utility room. A veranda is on the south end of one wing, providing space partly open and partly enclosed for the patients' use.

A room is provided for treatments and dressings, to which patients may be brought principally from the two and four-bed rooms. There is a room, with toilet connected, where visitors may wait if patients are not ready to receive them. The desk for the floor secretary is in the center where the



The third, fourth, fifth and sixth floors are alike, each having accommodations for thirty-eight patients in wards and single rooms.

wings join. Here also are racks for patients' records, charts and the medicine closet. The floor kitchen is near the elevator which brings the food truck from the main kitchen. It is connected by means of two dumb-waiters with a space in the basement adjacent to the dishwasher and to the special diet kitchen. It contains a refrigerator cooled by brine pumped from a machine in the basement, a sink and shelves, a hot closet for dishes, a gas stove, a toaster, a fruit closet and tray racks.

The ceilings of the floor kitchen, the utility rooms and the elevator lobbies are covered with an acoustical material that absorbs 70 per cent of the noise in the room.

Each floor has a clothes chute for conveying soiled linen to the basement, two closets for clean linen, a place for wheel chairs and stretchers and a blanket warmer. A surgeons' wash up sink and an ice water faucet are in each wing. Scales and a telephone booth are in the corridor.

Every patient's room has a lavatory and there is a small clothes closet for each patient. Telephones and radio head sets may be plugged in at any bedside by means of a connection which, with the nurses' call outlet, is provided on both sides of the room so that the head of the bed may be placed conveniently on either side of the room.

The dimensions of the single rooms are 9 by 12 feet, of the double rooms 13 by 16 feet and of the four-bed rooms 16 by 24 feet.

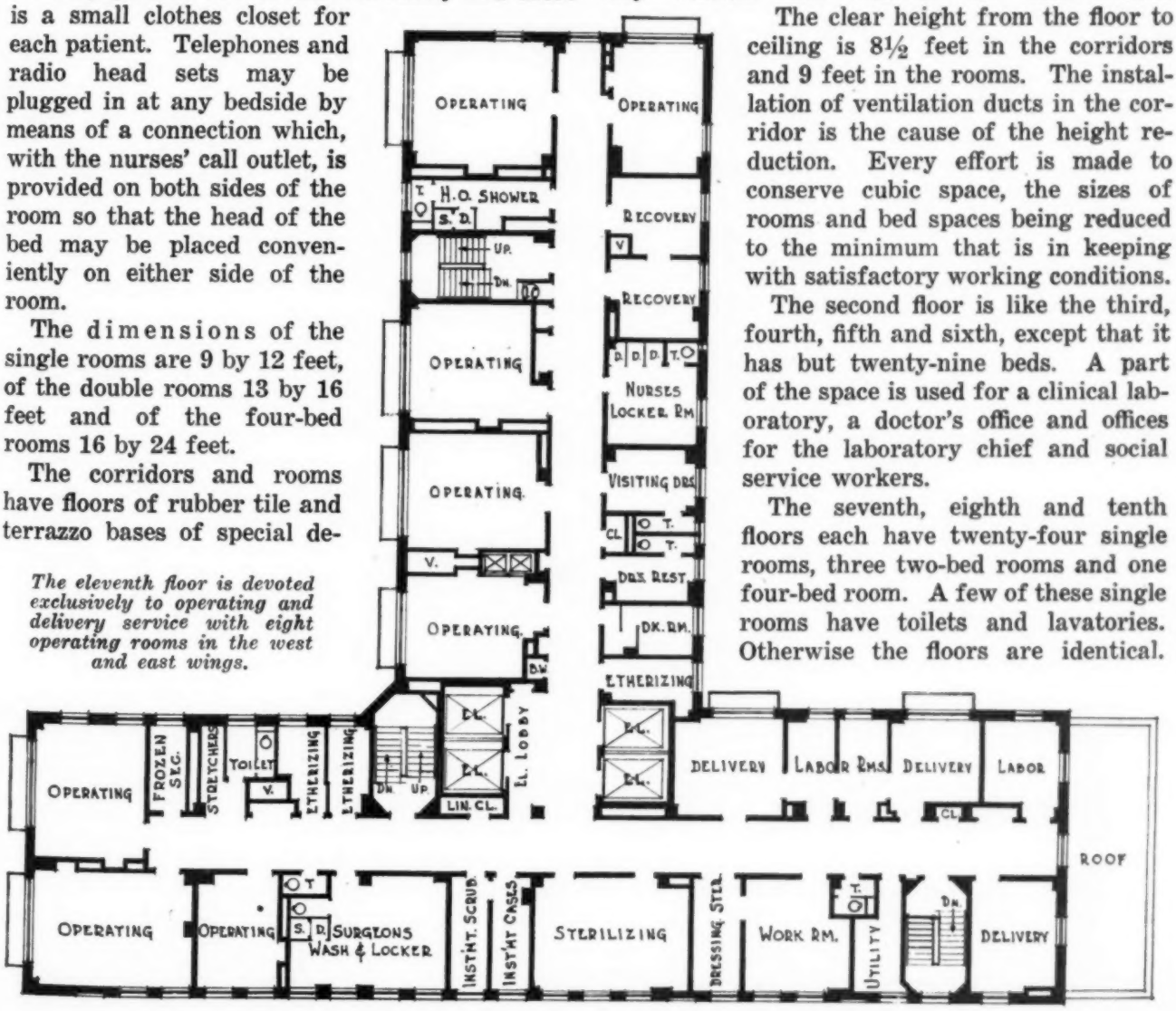
The corridors and rooms have floors of rubber tile and terrazzo bases of special design to keep the furniture from marring the walls. The ceilings of the corridors are plastered with a sound absorbing plaster. At convenient points in the corridors are outlets for the bedside use of the cardiograph, the x-ray and negative air, as well as outlets for vacuum cleaners, scrubbing machines and watchmen's clocks.

The bedside calls for a nurse are recorded at the floor secretary's desk, the utility rooms and the floor kitchen. Outside the door to each patient's room is a switch which is used by the nurses or the doctors to inform the floor secretary of their whereabouts. This switch, when turned on, lights a bulb which enables the floor secretary to know where to find the nurses or the doctors. Through a speaking phone near her ear the floor secretary is informed when a doctor is called and she finds him by aid of the light. When patients are called on the phone a connection is made at the patient's bedside. The floor secretary does much clerical work, receives any visitors and relieves the head nurse.

The clear height from the floor to ceiling is 8½ feet in the corridors and 9 feet in the rooms. The installation of ventilation ducts in the corridor is the cause of the height reduction. Every effort is made to conserve cubic space, the sizes of rooms and bed spaces being reduced to the minimum that is in keeping with satisfactory working conditions.

The second floor is like the third, fourth, fifth and sixth, except that it has but twenty-nine beds. A part of the space is used for a clinical laboratory, a doctor's office and offices for the laboratory chief and social service workers.

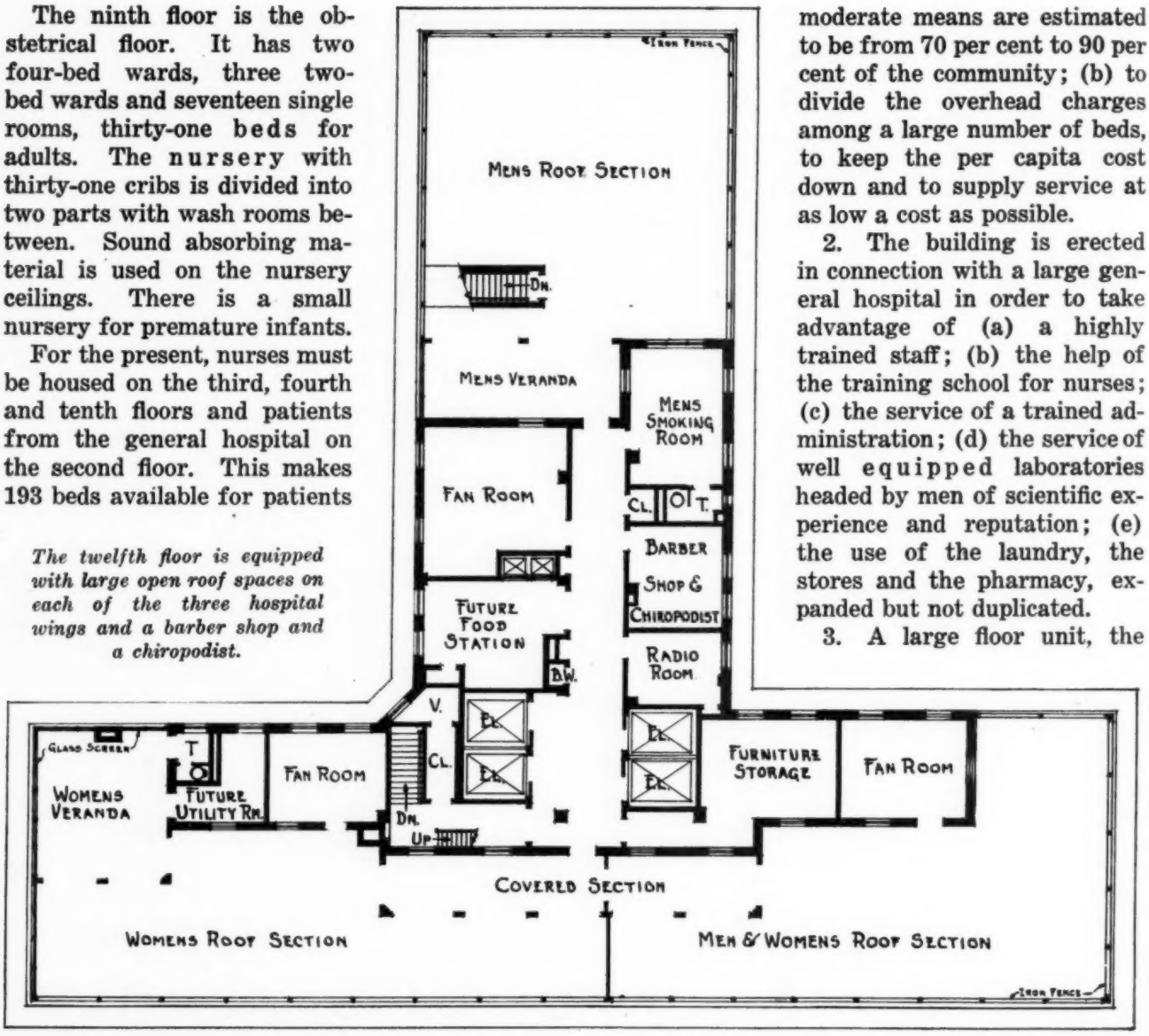
The seventh, eighth and tenth floors each have twenty-four single rooms, three two-bed rooms and one four-bed room. A few of these single rooms have toilets and lavatories. Otherwise the floors are identical.



The eleventh floor is devoted exclusively to operating and delivery service with eight operating rooms in the west and east wings.

The ninth floor is the obstetrical floor. It has two four-bed wards, three two-bed wards and seventeen single rooms, thirty-one beds for adults. The nursery with thirty-one cribs is divided into two parts with wash rooms between. Sound absorbing material is used on the nursery ceilings. There is a small nursery for premature infants.

For the present, nurses must be housed on the third, fourth and tenth floors and patients from the general hospital on the second floor. This makes 193 beds available for patients of moderate means. There will be eventually 332 beds available for patients and thirty-one cribs for newborn babes.



The twelfth floor is equipped with large open roof spaces on each of the three hospital wings and a barber shop and a chiropodist.

It has been possible to have so many beds in this building because so many of the services are supplied by the general hospital.

Dining rooms for doctors and domestic help other than kitchen help, the morgue, the pathological, cardiographical, chemical and other laboratories are outside the building and are shared with the general hospital. This is true of space for the general store and the pharmacy. Heat is manufactured in the hospital power plant. The laundry work is done in the main laundry.

Summary

1. The unit is a large one. It has an eventual capacity of 332 beds and thirty-one cribs for newborn babes. The reasons for this are: (a) the size of the problem; people in the group of moderate means are estimated to be from 70 per cent to 90 per cent of the community; (b) to divide the overhead charges among a large number of beds, to keep the per capita cost down and to supply service at as low a cost as possible.

2. The building is erected in connection with a large general hospital in order to take advantage of (a) a highly trained staff; (b) the help of the training school for nurses; (c) the service of a trained administration; (d) the service of well equipped laboratories headed by men of scientific experience and reputation; (e) the use of the laundry, the stores and the pharmacy, expanded but not duplicated.

3. A large floor unit, the smallest having twenty-nine beds and the largest thirty-eight beds. The size of this unit makes it possible to employ a floor secretary to care for the clerical work and perform other duties.

4. The sending of the food in bulk from the kitchen in an electrically heated carrier with one compartment chilled by brine; the hot food served from the floor kitchen on heated dishes and taken quickly to the patients; special diets from the diet kitchen sent by one of the dumb-waiters to the floor kitchen.

5. The careful utilization of every cubic foot of space both perpendicularly and horizontally; the ceilings of the rooms kept as low as is practicable; the rooms made as small as possible to contain the necessary furniture and house the patients comfortably. These sizes were all carefully studied by actually marking out the space and setting up the furniture.

6. Careful sound deadening devices.

What Is the Place of the Aged in the Medical Scheme?*

By E. M. BLUESTONE, M.D.
Director, Montefiore Hospital, New York City

QUESTIONING tradition is not often a popular undertaking. But the risk of supinely accepting standards laid down by previous generations working under different social conditions without regard to their logical or humanitarian relationships, is too great for the social worker who is intent on securing for his wards the fullest benefits of modern social service. Medical service in my opinion is a specialized form of social service to which it is closely related by ancestral ties. We shall save a lot of time by accepting the physician in the rôle of a high grade social worker with a specialized professional mission.

We could, therefore, exclaim against the thoughtlessness and inaction of a community that is apparently willing to accept for the aged, who are dependent on its bounty, standards of medical service that are out of date in the highly organized society of to-day, whose vaunted objective is the scientific and humane care of all individuals who belong to the dependent class. We could then pose the subject in the form of a problem: What should be the place of the aged in our scheme of medical organization?

An Unfulfilled Wish

If you discuss the medical care of the aged in institutions with those who, like the trustees and administrators of these institutions, are responsible for its provision, you will be told that their ambition is to build a hospital department or annex so that aged and infirm persons in need of medical and nursing care may receive adequate attention. You will find, as your inquiries progress, that the medical problem seems constantly to be on their minds and on the minds of thinking persons who are in a position to judge medical service. This appears to be a confession of a serious weakness in the present organization of our homes for the aged, most of which lack the proper medical connections. At the same time it is a pious wish that is unfortunately not fulfilled in reasonable measure. As is usual when matters of public policy are discussed, there seems to be agreement "in principle." But there the matter rests. It cannot be said that the problem is financial, because the contributing public the world over deals generously with institutions for the aged.

Medical Attention Usually Perfunctory

Homes for the aged, like homes for the incurable (a presumptuous name that creates an atmosphere of finality about the inmate and gives the impression that the medical and social agents have passed a life sentence and in some cases a sentence of death that may not be appealed), in most instances have a makeshift infirmary in charge of a visiting physician, and occasionally of a resident physician, who is frequently more kind-hearted than he is scientific and who, either as a paid officer or from a spirit of philanthropy, gives the inmates of the home such medical attention as they receive. In the annual reports of these institutions you will find an imposing array of consultants, but you will not often find them in the institution.

This is reminiscent of nineteenth century medicine, the more recent medical facilities of our day being limited to a selected group of patients. One gets the impression, in analyzing the problem, that this might be due to a system of social philosophy which holds that the fittest only may survive and that little is lost when dependent persons pass from the scene as a result of the carelessness of society in providing for them. It might also be due to a conscious desire to focus all of our time, money and energy on another group of patients who, as a rule, can be returned as useful members of society by a concentrated attack on their ailments.

What happens when an old man or woman gets sick? The reply is simple—a doctor is called. The condition in most instances is of a chronic nature and the prognosis, at least for ultimate recovery, is poor. Because the case may not be particularly interesting, or because it may be the type from which dramatic results cannot be expected or from which the doctor may expect no more

*Address delivered before the section on homes for the aged, National Conference of Social Work, Boston, June 10, 1930.

than a modicum of financial reward, he calls at his convenience and prescribes for the patient. If the patient should require hospital attention, however, a difficulty at once arises, for the aged share with the chronic and the "incurable" the necessity for standing like a beggar at the door of the general hospital, which, as we all know, selects short term cases that are interesting medically.

The aged patient is not often in the "urgent" class. The aged and the chronic at the door of the "acute" hospital are on the defensive and undergo much closer scrutiny at the hands of the admitting physician, who is guided by certain definite rules of eligibility. They are patients who, if fortunate enough to be admitted to the general hospital, which of all hospitals is best fitted to care for them, are relegated at the earliest moment consistent with safety to public hospitals which are expected to possess virtues that the general hospital cannot afford. Or, in place of public hospitals and sometimes in cooperation with them, they may be transferred to homes and almshouses of various kinds which, in their vague scheme of medical organization, do not have the facilities that the acute general hospital possesses for the treatment of such cases. The result is often unsatisfactory and a relapse is likely to occur. The future destiny of the aged patient thus continues to be surrounded with considerable uncertainty under the prevailing scheme of medical organization. Was this the intention of those who, in the history of organized medicine, have been responsible for the equitable allocation of medical service?

Literature on Senility Is Scarce

There is no evidence to indicate that the clinical aspects of senility have as yet been given adequate consideration. Certainly the literature on the subject is exceedingly scarce when one thinks of the voluminous material that is published from week to week in numerous medical journals. On the other hand, there are a number of contributions on the social aspects of senescence in the literature of the social sciences. Recent discussions on this aspect of the subject in our legislative groups are heartening. Perhaps the fault rests with the physician, who, in good faith and with the best of intentions, is encouraged by the present scheme of medical organization to be highly selective in the clinical material at his disposal outside of private practice, and who has no time left for any other. The physician who gives freely of his time to hospital work has his reward largely in this legal right of selection. Some day, when organized medicine provides a decent livelihood in return for the full-time service of the physician, it will be an easier matter to secure his services in hospitals for other than acutely ill patients.

The first modern treatise on old age was written about a hundred years ago by Canstatt of Germany, but it made little impression on the medical world. The clinical lectures on "Diseases of Old Age," given by Charcot at La Salpêtrière in Paris fifty years ago and translated by Dr. Leigh Hunt of New York, represent the first modern effort to deal with the problem, but it was an isolated effort that came too early in the scientific era to be of permanent value. There is nothing of interest to report from a further study of the medical literature, aside from the work of G. Stanley Hall, until the symposium on the medical aspects of old age at the New York Academy of Medicine two years ago.

The Aged as a Clinical Problem

The point of view of the aged as a clinical problem is rarely taught and certainly never emphasized to the student of medicine in our undergraduate and postgraduate medical schools, but the teacher will lose himself in long discussions when rare cases happen to come into the clinic, cases the practitioner will probably never see again. Yet the subject is one that calls for considerable thought on the part of the practitioner of medicine, if for no other reason than that the chronic, the aged and the so-called incurable constitute the bulk of his practice and are difficult medically. Nor has there ever been any indication of systematic investigation into the clinical aspects of old age, all of which, aside from the lack of medical interest, may be due in large measure to the belief that these patients are bound to be more or less dependent for the remainder of their lives and therefore not worth the effort that could be conserved for the benefit of the younger and more promising elements in the community.

From the point of view of my argument we may take it for granted that we are dealing with a special clinical problem which concerns the aged who are infirm. The aged who are not infirm are so close to the borderline that, for the purpose of this study, they should be included. Nor need we stop to define the many ages of man, including old age, as so many of our institutions do. The term is purely relative and I refer, of course, to patients who are senile from the medical point of view.

The prevention of disease in the aged is a special problem in preventive medicine affording vast opportunities. In old age the tendency of disease to chronicity, if the outcome is not fatal, lends emphasis to the importance of the problem. The aged must be made comfortable by preventive and other measures; it is not only the medical thera-

peutics of old age that concern us. The question of susceptibility to disease and the question of terminal infections still further illustrate the importance of prevention and the extent to which the clinical aspects of old age are specialized. Assuming therefore that the aged need medical supervision, either constantly or at relatively frequent intervals, we come to the scheme of medical organization into which this group of patients could best be fitted.

In the experimental study of the medical care of the aged we already have, as a control, another type of patient who proves the value of the application of organized scientific medicine in the diagnosis or treatment of disease. What is needed in medical skill for the acute patient must certainly be needed for the more complicated clinical-pathological conditions of the aged and the chronic. The best way, therefore, to provide the proper kind of medical service for the chronic groups would be to make available for them, insofar as this may be possible, the same facilities that the acute patient enjoys. This might be done in three ways: (1) by creating special facilities within the institutions that care only for the aged; (2) by opening the doors of the general hospital more widely to the chronic patient or (3) by having the home for the aged in close proximity to a general hospital, preferably one that is equipped to treat the chronic as well as the acute phases of disease.

What Is the Remedy?

The first remedy, the creation of special facilities for diagnosis and treatment in homes for the aged, has an objection that was hinted at earlier in this study. The aged, under this plan, would still be isolated medically and it would be difficult, if not impossible, to sustain the interest of the staff in the work. The stimulus of the acute hospital would be lacking. The second remedy, the more ready admission of the aged and chronic patients to acute hospitals, has the disadvantage of dispossessing a corresponding number of acutely ill patients. Since the bed capacity of the acute hospital is limited by many social factors as well as by medical factors, this attempt at a solution of our problem would be rather uncertain. In passing to the third remedy, we find that the diagnostic and therapeutic facilities in the wards and out-patient department, the presence of consultants in the specialties, the facilities for preventive medicine, for medical education and for medical research which the patients of the acute general hospital enjoy, could be made available by careful organization for all phases of disease and not only for the acute phase.

Under the group plan, which is here emphasized, the spiritual welfare of the patients in the aged section must be kept in mind, and this means that they must enjoy freedom from actual contact with hospital cases. This freedom is best provided by segregating them in a building apart from the hospital building, where plenty of open space and facilities for diversion are available. It would be a part of the group in this health and medical center, but it would be no longer isolated from the excellent facilities of the acute hospital. The great danger of discrimination would be minimized.

Advantages of a Combined Organization Scheme

If it were possible to reorganize our methods of caring for the sick in institutions and to provide hospital attention in health and medical centers such as these, for any individual who needs it without regard to the acute or chronic character of his condition and if, as an important corollary to this proposition, the physician, the nurse and the social worker would make no distinction medically between patient and patient, we would have an organization possessing a more humane basis than society enjoys at present. It would at least reduce the present "dumping" process which is based on the arbitrary rules of our fellow men and which subverts the high ideals in which organized medicine was born.

A home for the aged, a hospital for chronic diseases and a home for incurables are three types of institution that have much in common and should have every diagnostic and therapeutic facility at the disposal of an adequate staff, visiting and resident, including consultants, for the systematic care of all phases of disease. If these could be grouped in health and medical centers for the convenience of everyone concerned, so much the better. This would be the best way of giving the aged and other groups the prompt and adequate attention that they need. The acute hospital has nothing to lose and much to gain by this unification of the medical plan, and the other constituents have everything to gain and nothing to lose. We are rapidly learning that a judicious division of labor among the executive staff does away with the danger of size, which seems to stalk the trustees of the enterprise every time that a large institution is contemplated.

A combined scheme of organization along these lines could be established with flexibility as one of its characteristics, to permit of a free interchange of patients whenever necessary. Arrangements could be made on a rotating basis for regular visits on the part of the attending staff of all sections of the institution as necessary. Periodic

health examinations could be carried out, disease prevented scientifically and promptly dealt with on the spot, in the wards or in the out-patient department, when it occurred. The point of view of the aged could be taught comparatively while clinical investigation into the diseases of old age could be encouraged. Although the physician, under this plan, would have to dilute his hospital activities somewhat, he would have a balanced diet of clinical material. The change would have a wholesome influence on his work outside as well as inside the hospital.

From the standpoint of nursing education we would have the advantage of an institution in which the time of the student nurse could be divided among the various phases of the work during the course of her training. The nursing of the chronic patient, of the incurable and of the aged could be taught as part of the curriculum of the school of nursing. The material for specialized postgraduate study in nursing could be readily organized. For practical reasons chronic nursing is of equal importance with acute nursing, and here again the influence of a broader training is bound to react favorably on the nurse's activities.

The social worker under this unified scheme would see a more complete social picture, with unity as one of its dominant characteristics. The work would be conducted under a system that recognized a single social policy, embracing all phases of disease, in patients who would always be under control and readily followed up both inside and outside the institution. Each section could satisfy its own special requirements and at the same time provide a maximum of medical care for its inmates. The special diagnostic and therapeutic departments of the hospital section would be freely available for the aged. The laboratories of the hospital section, which could not be reproduced except with enormous expense, would be immediately available. The tone of the medical work generally would be improved through the influence of the acute section.

No Additional Financial Burdens

The unified plan as an evolutionary scheme does not call for the creation of additional financial burdens. It involves only the grouping of existing institutions for the good of all of them. One can indeed emphasize the obvious advantages of centralized management and control, besides the singleness of social policy and the more equitable allocation of medical service, for these are advantages that have an appeal to the individual contributor and to the contributing public in its organized form, who want us to think of business economy as well as social service.

Although our state government has certain executive powers over voluntary medical organizations, which must indeed secure official permission to come into existence and must render periodic reports thereafter, it would be inadvisable to secure legislation for the protection of the medical rights of the aged and the chronic sick, because these are matters for education rather than for legislation. Voluntary hospitals created by philanthropy have often led the way in medical enterprise, with no other urge than their own inherent purpose.

Minimizing Neglect of the Aged

The kind of clinical material presented by the aged is not often of the variety that is especially interesting to the majority of medical men, as has been pointed out, but the subject that does not interest one doctor may interest the other. This difference in selective interest on the part of men of science is indeed responsible for a great many of the inventions and discoveries in medical history. Members of the staff may be discovered within a large organization of this kind who will find a special interest not only in the routine treatment of the aged but in the value of the senile problem from the standpoint of education and research. The stimulus to arouse such interest will have been provided at least. For the clinical investigator there can be no better organization than one in which the natural history of disease in all of its phases may be studied from infancy to old age in a single institution which need never lose sight of its patients as long as they are in need of medical attention. It is our plain duty so to organize our facilities as to minimize the danger of neglect to any group.

The few scattered publications that one finds since the days of Charcot have left no lasting impression on medical literature. The symposium of the New York Academy of Medicine two years ago actually dealt with medical problems but gave the impression that this study was a by-product of the clinical laboratory. The diagnosis and treatment of conditions occurring in old age present their own special problems which the physician must face because, if he is to be true to his calling, he may not choose his clinical material but must accept it as it comes and do the best he can in the treatment.

In this paper I have tried briefly to outline a place for the aged in the scheme of medical organization that would make it easier for the physician to accomplish this purpose and fulfill his destiny—to cure disease and to prolong life without stopping to appraise the economic value of the patient to the community.

A Well Coordinated Food Service and How It Functions

By HELEN EVANGELINE GILSON
Chief Dietitian, Pennsylvania Hospital, Philadelphia

THERE seems no question in the mind of the hospital world that the dietetic department is a necessary part of the organization. Each year finds it invested with greater and more exacting responsibilities.

Dietitians fully realize that their sins of omission have been legion and while the profession may by some be considered young in the hospital field, it seems time to analyze and study the situation, giving careful consideration to the minutest details involved in providing our patients with appetizing food and an attractive tray service.

Dietitians are often expected to work satisfactorily in kitchen units that have been planned by architects, equipped by engineers and accepted by hospital administrators and boards of trustees, with little appreciation on the part of each group for details involved in the preparation and service of the variety of general, special and metabolic diets for private, semiprivate and ward patients.

Though dietitians have not yet been able to reach their goal of one hundred per cent satisfaction for every patient, they have been able to satisfy the greater number.

Possibly it is an opportune time to diagnose some of the difficulties encountered by dietitians and to suggest how they may be overcome.

Architects' plans and construction specifications have too often been the primary consideration in visualizing the finished picture. When finally the heads of the various departments, who are familiar with the specific needs of their departments, have been called in conference, the result can be likened to a picture painted by one artist and entirely changed by a few strokes on the canvas by another artist having entirely different ideas about interpreting the subject.

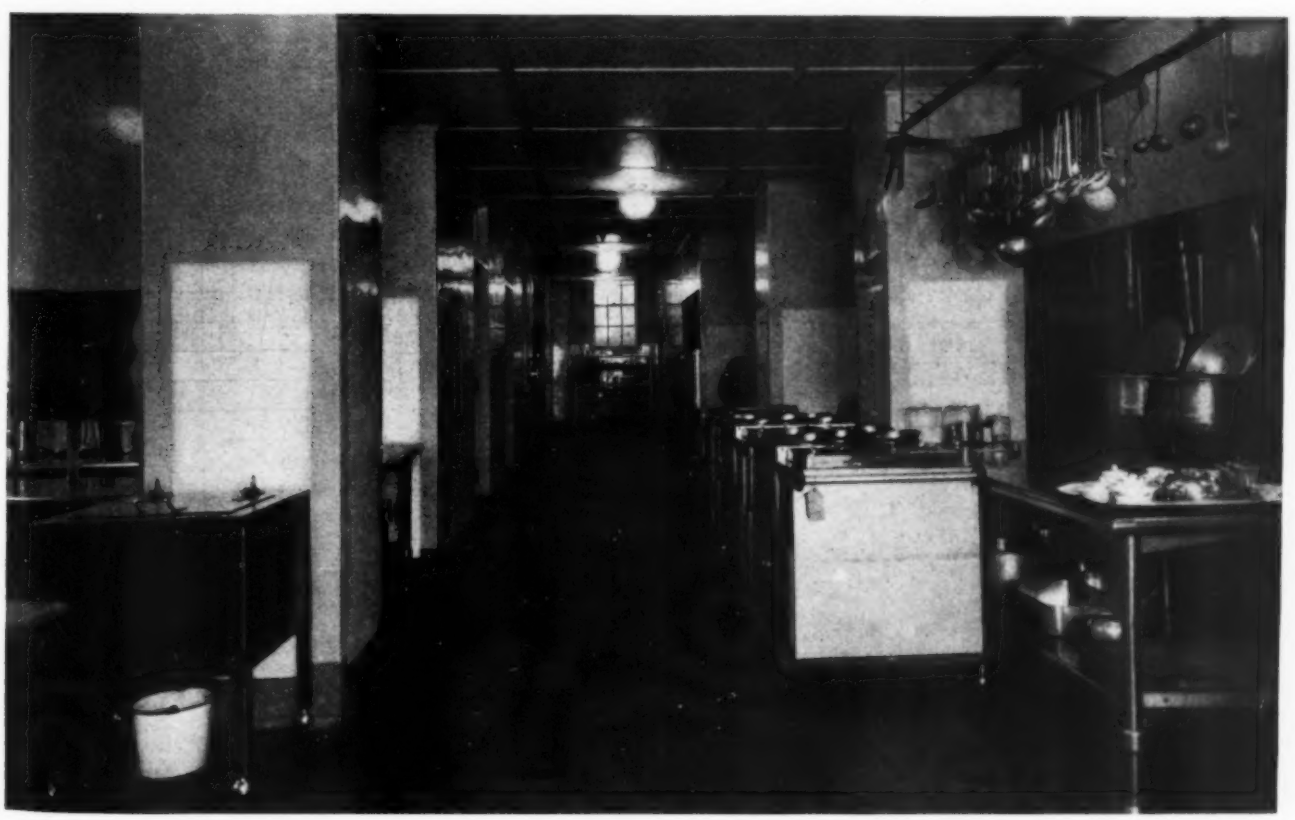


Fig. 1. A general view of the kitchen of the Woman's Building, Pennsylvania Hospital, Philadelphia.

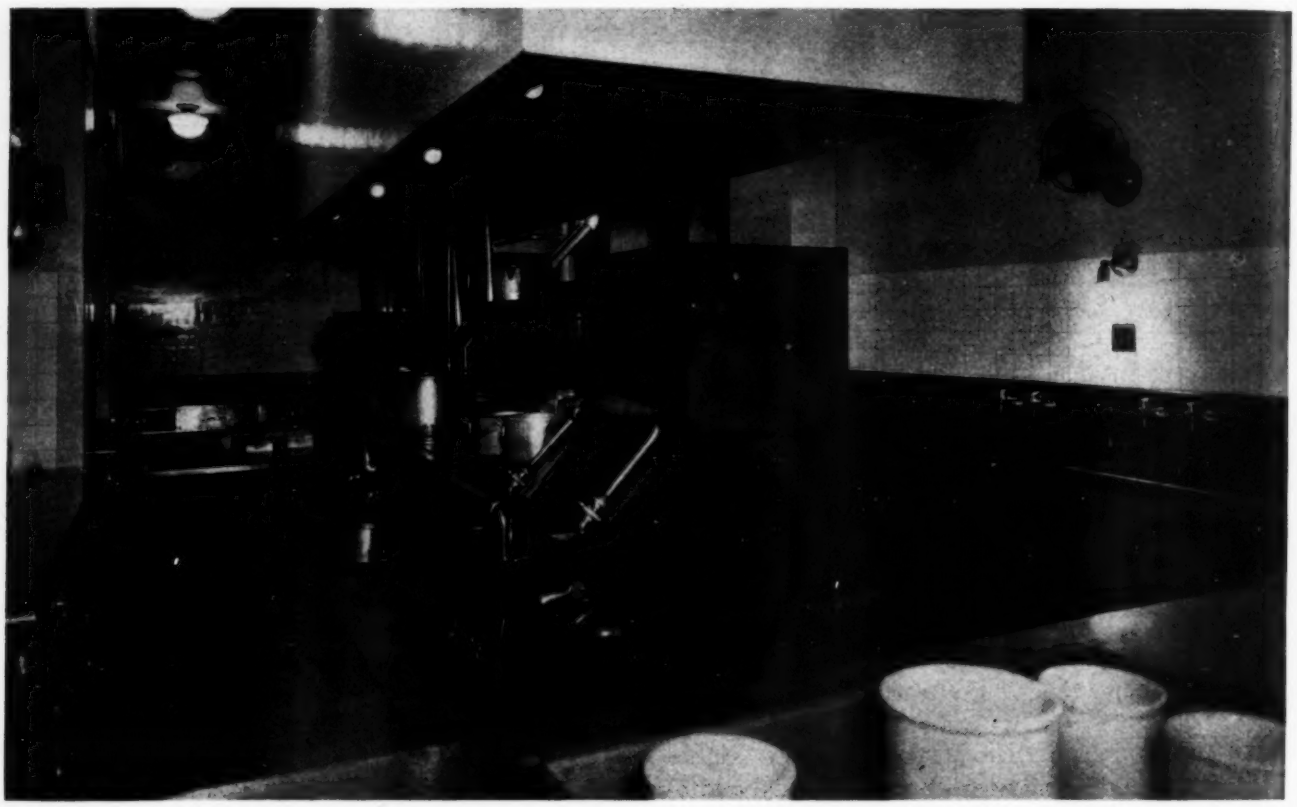


Fig. 2. The heavy cooking unit is equipped with three ranges, two of the flat top and one of the open burner type.

In food preparation and tray service we must strive to give optimum satisfaction to the patient, a person who is much below normal in both mental attitude and physical condition, and who is constantly making comparisons between the hospital food and that to which he was accustomed at home. The dietetic department must be run in an economic and efficient manner, and this cannot be accomplished unless the entire administration and the directors of the various departments have been in agreement as to the type of service to be adopted and are willing to give support and cooperation in carrying it out. No dietetic department can function by itself.

It is not unheard of for members of a hospital organization to state that the architects planned and the engineers built and equipped the dietetic department for a type of service entirely different from any that has ever been used. To ensure a smoothly functioning dietetic department, architects, engineers, administrators, heads of departments and tray service experts must pool their ideas, if the achitect is to incorporate these ideas in a composite picture, for the satisfaction of the patients, the doctors, the nurses and the dietitians.

The Woman's Building of the Pennsylvania Hospital, Philadelphia, is an illustration of how details can be worked out to ensure a satisfactory unit for the dietetic department when the group already mentioned have pooled their ideas. The general plans and construction of the building were discussed in the July issue of THE MODERN HOSPITAL.

It might be of interest to note some of the details for the location of work or specific equipment units which we considered of great importance in planning for a food service acceptable to the patient:

1. A central dish, glass and silver washing room at the point farthest from the service elevator.

2. Direct access from this room to the tray room by means of an opening above a dish counter common to both rooms; all trays to be set up in skeleton form in the tray room.

3. The sequence of work for both preparation of food and its service to be toward the patient.

4. The last unit for serving private and semi-private trays to be so placed that first cold and second hot foods can be served to the individual tray from both sides simultaneously, allowing no waste of motion by employees.

5. Open tray trucks for a nine-tray (16½ by 22½ inch) unit, three on each shelf, and the shelves numbered for each position. If the diet so indicates, smaller sizes could be substituted.

6. Trays in three standard sizes, 10¾ by 13⅞ inches; 13⅝ by 17⅝ inches; 16½ by 22½ inches, to be used for both tray and refrigerator service, a different color for each.

7. All tray appointments for private and semiprivate patients to be china, except the glasses, the pepper and salt holders, and the flat silver, the card holder, the hot water plate (to hold a china plate) and cover.

8. The dish warmer to be designed to hold trays for china cups and covers so that they would be handled only once between the time they were taken from the trays in the dishwashing room until they were placed on the tray in the hot service unit.

9. The gas broiler placed next to the bain-marie.

10. The chipped ice chest for filling ice-caps to be in the floor utility rooms, not the floor kitchens.

11. A dish sterilizer in the kitchen on the septic floor.

12. Central nourishments for all patients.

13. Central tray service for all private and semiprivate patients; tray trucks to be kept in the tray room.

14. Combination service for all ward patients, with as much food served in individual dishes in the kitchen as possible; tray trucks to be kept in the floor kitchen.

15. The service elevator and one passenger elevator to be available during the serving of meals.

16. A dining room for the convenience of private and semiprivate patients during the day, and for midnight lunches for the night personnel.

17. Trays to be served to private and semiprivate patients and to their guests in the solarium on the roof or in the dining room with no extra charge.

18. All service to and from the central kitchen to the floor kitchen to be by waiters.

19. All the personnel including the chef and the pastry cook to go to the general hospital for their meals, except night lunches.

We have tried to work out satisfactory details for the service of the following foods about which the patient probably has had cause to complain in many hospitals: broiled meats and fish; baked potatoes; soft cooked eggs; toast and rolls; hot cereals; hot drinks; iced drinks, and frozen desserts.

All of the details referred to have been carried out and while we realize there were many more details to consider, they easily fitted into the picture.

The accompanying pictures illustrate the type and location of some of the equipment in relation to sequence of work and tray service appointments. Fig. 1 gives a general view of the kitchen as one enters. The slate floor entirely eliminates the vibration usually noticed when tray trucks are pushed over a quarry tile floor. In noting the various units, beginning at the extreme left, we find:

Milk laboratory.

Bank of four refrigerators. One opens into the

Fig. 3. The cold service and nourishment room where cold foods and drinks are prepared.

milk laboratory; two open into the corridor, one of these being used for dairy products and one for fruits, vegetables and miscellaneous foods, and one opens into the butcher shop (this is kept at a lower temperature than the others). All broths are kept in china crocks.

Butcher shop. This is equipped with a sink and three wooden top tables, a meat block, scales, electric meat slicer and a food chopper.

How Foods Are Stored

Food supply storeroom. This room has one closet that locks, and a hook so placed that a bunch of bananas need not touch the wall. Glass utility jars are used for the storage of all small quantity supplies.

Vegetable, fruit and salad preparation room. Here are found a potato peeler, an apple parer, a vegetable cuber and a can opener. This room also has a sink and two wooden top tables.

It is easily seen that the food is taken for refrigeration and storage to the farthest point in the kitchen unit and that the sequence of preparation, whether it is to the cold service room or to the cooking and hot service unit, is always toward the patient.

Cold service and nourishment room (Fig. 3). This room is equipped with a bank of eight refrigerators with two shelves each, which will take two standard 16½ by 22½ inch trays, placed side by side; a chipped ice chest with a scoop of special design for putting ice in glasses; four monel metal work tables, two of which have open shelves, one of these holding trays for glasses, and the other the dishes used in the preparation of nourishments. The third table has the bottom closed by two sliding doors where dishes used for serving nourishments, but not requiring chilling or heating, may be kept. The fourth table holds a bread slicer under which are two tilting bins for storing bread and rolls. The equipment includes silver pans, a milk and cream urn, an orange juice extractor, and an electric drink mixer with two containers, a four-section electric refrigerator for ice cream, the motor for which fits under the drain board at the right of the sink. The sink is of monel metal over which there is a special shelf designed for the particular utensils used in the room and under the left drain board another shelf for cleaning materials. This unit has been designed and equipped to give ample room for the chilling of dishes and foods and from which food can be quickly served for the individual trays and the food conveyors.

Dietitian's office (not shown in the picture).

Closets for electric switches and fire hose (not shown in the picture).

Passenger elevators. These are at the right through the corridor door (not shown in the picture).

On the right side of the kitchen are located:

Dishwashing room. The equipment here consists of two basket dishwashers, double glass sinks and double silver sinks with removable baskets and live steam connection.

Tray room. This room contains dresser cupboards with adjustable shelves, the one above the counter having a sloping top. The cupboard above the counter is used as storage space for china, salt and pepper shakers, and sugar pourers; the one below the counter, for napkins and tray covers, both linen and paper, and for trays.

Pastry unit. This is equipped with a mixer, a work table with a set-in marble slab in one end, three drawers and a shelf for utensils, a gas pastry stove, a gas pastry oven, and steam cereal cookers.

Heavy cooking unit (Fig. 2). The two work tables here have shelves and drawers. There are also one utensil rack, a steam vegetable cooker, two aluminum stock pots, three ranges, two of which are flat top and one of the open burner type and a gas broiler. Pot sinks and a hand sink are behind the ranges.

Preparing Hot Foods

Hot service unit (Fig. 4). This has been worked out with the greatest care to give quick service. The bain-marie has two closets with sliding doors opening towards the ranges, where soup bowls, cereal, toast and vegetable dishes, and the service plates are heated. China crocks are used in the bain-marie. This unit is equipped with a battery of urns and an automatic egg cooker with a closet underneath for pots to be used for coffee, tea, cocoa, milk and water. The covers for these pots are kept in banquet pans, these covers being placed in the pans in the dishwashing room, which results in little breakage.

Dishwashing closet. This opens on both sides with two sets of sliding doors, one for the top two shelves and one for the bottom two shelves. On the top shelves at the left are kept the egg cups and covers, and hot water plates and silver covers. These are convenient to the egg cooker, which is at the extreme end of the battery of urns, as well as to the hot water urn. The insets and aluminum pitchers for the food conveyors are heated on the bottom shelves. On the opposite side of the warmer are the trays with cups and china covers and part of one shelf is reserved for heating dry breakfast cereals.

Table with a steam roll warmer and an electric toaster.

Outside the main kitchen unit are to be found:

Special diet kitchen.

Service elevator.

Small storeroom. Cleaning supplies and employees' uniforms are kept here.

Large storeroom. A part of this is used by the dietetic department.

Typical floor kitchen (Fig. 5). Here, at the left of the toaster, is a small monel metal sink and in the side wall are built a towel dryer and garbage can closet, both of which have outside ventilation. On the side opposite the stove are a dresser cupboard and bulletin board. The ward tray truck is seen as it is returned from the central tray room with the trays set up in skeleton form containing a tray cover and napkin (paper); flat silver (fork, knife and spoons); a sugar pourer, 3½ ounce; glass salt and pepper shakers; a 5 inch bread and butter plate; a fruit saucer, 4⅞ inches, used as a saucer for a cup or as a fruit, vegetable and dessert dish, and an unhandled cup.

At the time the waiters bring back these tray trucks, set up in this way, they also place in the dish warmer the 8 inch plates, the 4⅞ inch fruit saucers used as vegetable dishes, and the 5½ inch soup bowls.

All dishes for dessert, salads or fruits and the 2 ounce milk bottles are kept in the central kitchen as all of these foods are served in individual dishes and placed on trays ready to be sent to the floors.

The china used on all ward trays has a green decoration except that used on the septic floor, which is plain white.

Fig. 1 shows the standard type of food conveyors used. They are finished in aluminum, have bumpers and contain five insets and a specially designed meat pan having two compartments each for meat and gravy. These are heated in the dish warmer before the serving of the food. The bottom of the truck is divided into two closets having separate doors, with special catches. The right closet has one shelf that holds the tray of individual milk bottles and the bottom has an especially designed pan for sliced bread. Above this closet and between the meat pan is sufficient space to place the butter pan which is an aluminum banquet pan, with a cover designed especially for stacking and upon which is marked, by means of a blue china marking pencil, the number of pieces ordered and the floor to which it goes. The butter cubes are covered with chipped ice as they are placed in the pans, which are stacked in a refrigerator in the cold service room until the meals are served. The left closet has

Fig. 4. This illustration shows the actual working position of the dietitian and her helpers in the hot service unit.

two shelves of sufficient size to receive standard 16½ by 22½ inch trays, the space between the shelves being ample for fruits, salads and desserts served in the individual dishes. Cold handled aluminum pitchers of 5 quart capacity are provided for each conveyor.

Appointments especially designed for the tray service for private and semiprivate patients include china covers for cereals and toast, vegetable dishes and soup bowls; a stainless steel, hollow handle dessert knife; silver hot water plates, with special chain and stopper, to hold an 8 inch china plate; a silver cover for the 8 inch plate, of a design in keeping with the china covers.

Tray Trucks Are Well Equipped

Tray covers for the standard trays were made of a standard linen that was shrunken many times before the exact size was determined for the three sizes of standard trays used.

The tray trucks used for the ward service have shelves 59 inches long by 23½ inches wide (inside measurement). There are five shelves, the bottom shelf being the standard distance from the floor. The trucks have bumpers on all four corners and push handles on both ends, opposite the middle shelf. The ends of the push handles have bumpers. For private patient service this model has a special modification. The ends of the trucks are enclosed in plate glass from the top to the first shelf above the bottom. Each truck was designed to hold nine 16½ by 22½ inch trays, three on each shelf and in case the diet indicates a tray of smaller size it would occupy the same position. The shelves are numbered on both sides of the trucks, the top shelf 1-2-3, the second 4-5-6 and the third 7-8-9. A specially designed menu board holds the nine menus, which the dietitian is seen holding in Fig. 4, and which are arranged in the same order and kept on top of the truck. The tray cards have the name and room number of the patient and in the right upper corner is one of the numbers 1 to 9, indicating the position of the tray on the truck.

As the menus are received for checking, they are arranged numerically according to room numbers and are numbered for positions on the truck, from 1 to 9. One menu card is taken for checking the food for every nine trays. This checking is done by placing the number of the tray, according to its position on the truck, over the food desired, as underlined on the patient's menu card:

3-8-9	1	4-6	2-5-7
Orange juice	Banana	Prunes	Strawberries

All orders on these cards, each representing one truck, are added and posted for the kitchen order.

The tray trucks for private and semiprivate patients are wheeled from the tray room and stationed in the corridor outside the cold service room (Fig. 3), in a position so that the cold food and drinks can be served from both sides simultaneously. The dietitian calls off each food by number from her order board, the position of the tray on the truck corresponding with the number on the tray card and the number of the menu on the menu board. Any side orders, which are almost a negligible quantity, are noted on the side of the order cards. The trucks are then pushed to the hot unit, illustrated in Fig. 4, which shows the actual working positions of the dietitian and employees. Again, the service is from both sides simultaneously. From the left, the chef serves the meat, the fish or their substitutes; the pastry cook the hot soups or broth and the vegetables. From the right, the hot water plates are filled with boiling water from the urn by the pot washer, and placed by him on the trays by the time the meat, fish or their substitutes are ready. He then places the silver covers over the plates. The hot water plates are filled simply and quickly by means of a specially designed wooden rack that holds three plates in an upright position.

The tray maid and one waiter fill and place on these trays all the hot drinks, including tea, coffee, cocoa, water and milk. White canvas gloves are worn by the employees handling the hot water plates and china, which are too hot constantly to be handled without this protection. The maid in charge of the cold service room and one waiter place the cups and all china covers on the trays as the various foods are served.

When the truck is ready, the two waiters wheel it to the elevator, one accompanying it to the floor and the other returning to the hot unit to help serve another.

Private Patients Have Dining Room

The service elevator is usually sufficient for this service, but if it is not available it is understood that one passenger elevator may be used.

The dining room for private and semiprivate patients has two windows on the right. The furniture is antique maple and a few pieces of pewter and Stiegel glass seem appropriate in this room. The table cloths have the same scalloped edges as the tray covers, and the latter are folded and used as napkins.

The waiters collect the regular orders for the central nourishment service not later than 9 a.m., 2 p.m. and 7 p.m. Emergency orders are received at any time. The nourishment list was approved by the administration and staff before the building was opened and changes have not been found

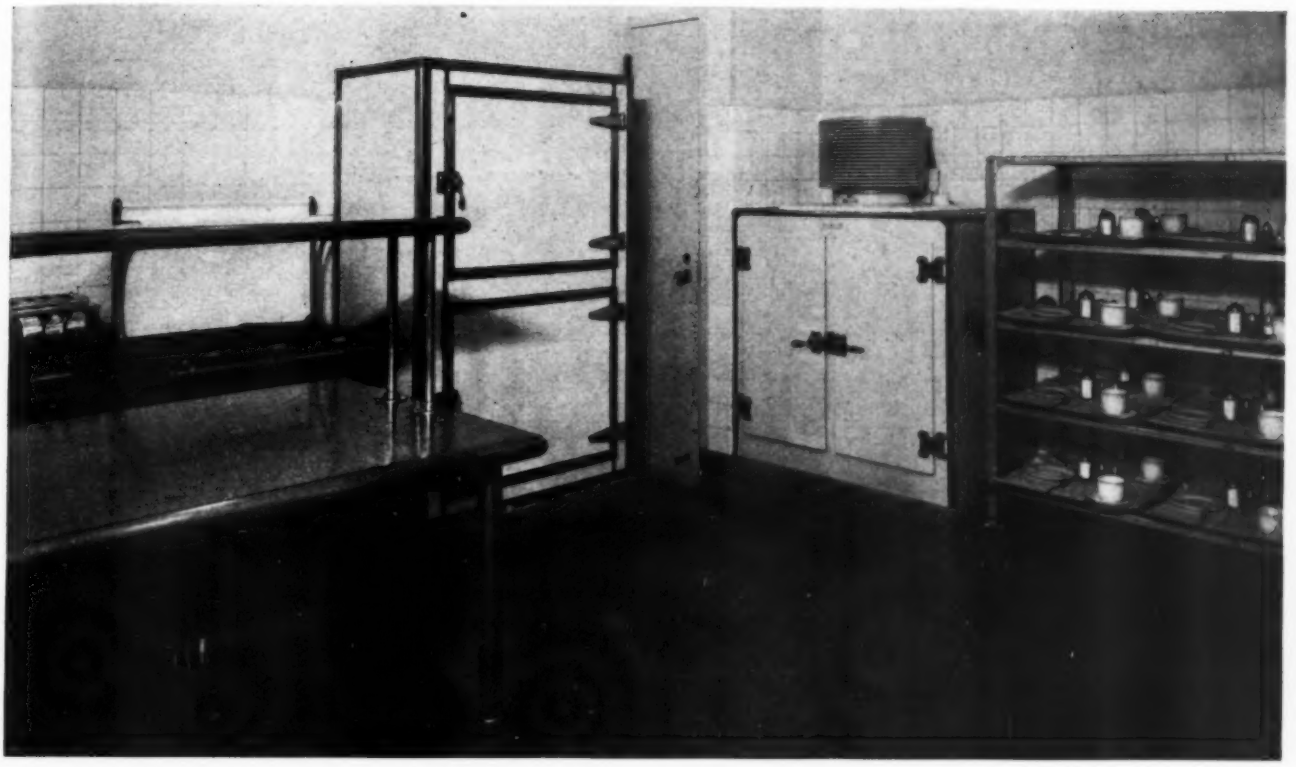


Fig. 5. Here is shown a typical floor kitchen with a ward tray truck set up in skeleton form.

necessary. The list gives the element of choice to private, semiprivate and ward patients. The orders are prepared and taken to the floor kitchens by the waiters. It may be of interest to note that there are almost no orders for beverages or broths, few for eggnogs and orange juice. By far the most popular items on the list are vanilla and chocolate ice cream, and milk shakes—vanilla, chocolate, plain or with malted milk. All milk shakes are made with ice cream and a little milk and are mixed in the electric mixer. Orange ice is the least popular of the three frozen foods kept on hand. The character of the nourishment order is influenced by weather conditions.

The kitchen is open from 6:30 a.m. to 8 p.m.

The hospital has a capacity of 150 adults, of which thirty-seven are private, twenty-six are semiprivate and eighty-seven are ward patients. The staff of the dietetic unit serving these patients includes: a dietitian, who is relieved by the administrative assistant; a chef; a pastry cook; one maid, who assists in the cold service room; one maid for the tray room; one maid for the dishwashing and tray room, who cares for the glassware and silver; one maid who cleans and assists with the glass and silver washing; one man, who works in the dishwashing room; one man, a pot washer; one man, who prepares vegetables, assists with the cleaning and relieves the dishwasher and pot washer; two waiters, one who reports at 7 a.m., the other who reports at 9:30 a.m. and serves the midnight lunch from 11 p.m. until midnight.

All employees have one whole day off duty and and the waiter who serves the night lunches, a day and night together. The minimum wage given the maids is $40 a month. They pay for the standard uniforms used, which are tan with blue trimming. The hospital furnishes two caps to match and two white aprons, replacing them when they are worn out. Each maid launders her own uniform. The minimum wage given men employees is $50 a month. The hospital furnishes and launders the blue denim jumpers and white caps worn by the kitchen men as well as the waiters' coats. The two waiters have rooms in the hospital. All employees have breakfast before reporting for duty. All except the chef and the pastry cook go for dinner from 11 to 11:30 a.m., before the patients' dinners are served, and for supper from 5 to 5:30 p.m., after the suppers for ward patients and before the suppers for the private patients are served. The chef and pastry cook go for their meals after dinner and supper have been served.

In conclusion, I should like to reemphasize the fact that the successful planning and functioning of this food service unit were possible only through the coordinated effort of many people, each looking at the problem of food service from a different angle, but each having the same goal in mind, to satisfy the patient.

Are Acoustical Materials a Menace in the Hospital?*

By CHARLES F. NEERGAARD
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THERE has been a general feeling among hospital administrators, doctors and architects that the various substances used in acoustical treatment, such as porous plasters, soft organic felts and fibers present a potential menace as an abiding and breeding place for germs and bacteria.

This article outlines a series of laboratory studies, the test data of which suggest that the five acoustical treatments named present no graver menace than the ordinary materials that they replace.

NOISE and its elimination are recognized as problems that particularly affect hospitals. In few other buildings is it so imperative that quiet conditions prevail. This fact is evidenced by the rapidly increasing use of materials for absorbing noise at the point of origin, and by the care given in construction details to prevent as far as possible the transmission of sounds.

Since all materials used for interior finishes in hospitals should be carefully selected so that they may be frequently cleaned and painted to ensure sanitary surroundings, it is necessary that acoustical materials be satisfactory in this respect. To possess any value for sound absorption a material must be porous and it has been feared that such a material would permit the penetration of bacteria and that such bacteria would remain viable longer in or on acoustical material than on the usual smooth surfaces used for interior finish.

To determine how satisfactory in this respect are acoustical materials commonly used in hospital work, an investigation was conducted in the bacteriological laboratories of Yale University to ascertain (1) to what extent bacteria penetrate into the substance under test when applied by direct application (as with a brush) or by droplet deposition (as with a spray), and (2) to what degree bacteria so applied remain viable on the surface and within the texture of the materials.

The following acoustical materials, frequently used in hospitals, were studied:

Nashkote, Type A-1-S—acoustical hair felt with a cemented muslin membrane, unpainted.

Acousti-Celotex—compressed sugar cane fiber, drilled with 400 ¼-inch holes per square foot.

Nashkote, Type AX—acoustical felt with muslin cemented on, and water color painted.

Nashkote, Type B-332—acoustical hair felt with perforated oilcloth cemented on.

Sabinite—porous acoustical gypsum plaster.

It was originally intended to make the studies with a microorganism of known pathogenic properties, like the streptococcus, to simulate in some degree the average conditions that might be encountered. This idea was dismissed, however, because of the difficulty both of cultivation and of identification of this organism in the presence of the nonpathogenic bacteria that were present, and it was considered unwise to subject the samples under test to any sterilizing procedure that might alter their state. The nonpathogenic *B.prodigiosus* was finally selected for the study because of its relative ease of cultivation and identification, and because there was no indication of its presence in the materials.

It was necessary as a preliminary experiment to determine whether the materials under test exerted any bacteriostatic or germicidal action. Tests made using sterilized samples of each of the five materials with the streptococcus, pneumococcus, diphtheria bacillus, typhoid bacillus and *B.prodigiosus*, and unsterilized samples with *B.prodigiosus*, indicated that under conditions of the test the materials exerted no appreciable bactericidal action and demonstrated that *B.prodigiosus* could be satisfactorily used for the experiments.

A culture of *B.prodigiosus* was grown on an agar medium and the suspension, obtained by washing off the growth with physiologic salt solu-

*Read at the meeting of the Acoustical Society of America, May, 1930.

tion, was applied in a thin film by means of a camel's hair brush upon the surface of the materials. The test sections were cut into four equal layers, parallel to the outer surface, to determine the penetrability of the material by the bacteria. No. 1 was the surface layer to which the solution was applied, No. 2 the next layer, No. 3 the third, and No. 4 the layer limited by the inner surface of the sample. Each of the four portions of the five samples was transferred to a tube of nutrient bouillon, thoroughly shaken, placed in an incubator for twenty-four hours, plated to plain agar, and further incubated. The plates were then examined for colonies of *B.prodigiosus*, the results being recorded merely as positive (plus) if colonies were present or negative (minus) if absent, no particular attempt being made to obtain precise quantitative values. The times of testing are expressed in days after the culture was applied.

Material	Layer	1 Day	2 Days	4 Days	6 Days	8 Days	12 Days
Nashkote, Type A-1-S	1	+	+	+	+	+	—
	2	+	+	+	+	+	—
	3	+	+	—	—	—	—
	4	+	+	—	—	—	—
Acousti-Celotex	1	+	+	+	+	+	—
	2	+	+	+	+	—	—
	3	—	—	—	—	—	—
	4	—	—	—	—	—	—
Nashkote, Type AX	1	+	+	+	+	—	—
	2	+	+	+	—	—	—
	3	+	+	—	—	—	—
	4	—	+	—	—	—	—
Nashkote, Type B-332	1	+	+	+	+	+	—
	2	+	—	+	+	+	—
	3	+	+	+	—	—	—
	4	+	—	—	—	—	—
Sabinite	1	+	+	+	+	+	—
	2	+	+	+	—	—	—
	3	+	—	+	—	—	—
	4	+	—	—	—	—	—

These results should not be read too closely. The materials were difficult to subject to bacteriologic examination. It is possible that contaminating organisms may have obscured the results in some instances, and other samples of the materials might have given results of another character. It appears, however, that when applied by brushing, the culture is absorbed, the degree of absorption being roughly the same for all of the materials, and the bacteria absorbed into the deeper layers die off more quickly than those on the surface, although this may be due to the smaller numbers present.

How Culture Was Applied

In addition to applying the culture by brushing, the bacterial suspension was evenly distributed over the samples by spraying with an atomizer for thirty seconds, since it was felt that this procedure more closely simulated room contamination under natural conditions. Tests were made in the same manner and at the same intervals as before, and it was found that the results agreed with the previous experiment.

The tests dealt only with the question of bacterial viability and only one organism, a nonpathogen, was used. Hence the data do not directly answer the question of how long pathogenic bacteria would live. For an interpretation, however, it must in fairness be stated that the tests were undoubtedly made under extremely severe conditions, and it may well be questioned whether under natural conditions bacteria that might become deposited upon the surface could penetrate into the deeper layers.

Bacterial Proliferation Was Absent

While no attempt was made to obtain accurate data of a quantitative nature bearing upon a possible multiplication of the bacteria within the substance of the samples under test, the platings made of the successive cultures clearly indicate a progressive diminution in the bacterial numbers. Certainly there is no evidence of bacterial proliferation, even with the saprophytic *B.prodigiosus* and there is every reason to believe that the materials composing the samples would provide an even less satisfactory source of food supply to organisms accustomed to a more highly developed parasitic existence.

Since acoustical materials are usually placed upon the ceiling, it is also unlikely that bacteria would be deposited in a moist suspension. A possible exception to this statement may be made in the particular instance of bed patients with respiratory tract infections who cough, thus directing a spray of droplets toward the ceiling, although it is a matter of conjecture if and how many such droplets will reach the ceiling.

It is sometimes felt that the porosity of acoustical materials makes them ideal for harboring bacteria, but when one considers the relative size of the openings in such material and those in the ordinary plaster wall in comparison with the microscopic size of bacteria, it is apparent that the seemingly smooth surface is also relatively porous. It is a matter of routine in hospitals to wash the floors and walls, and washing the less easily contaminated acoustical ceiling should produce the same effect as washing the smooth surface ceiling. It is important, therefore, to use in hospitals only such acoustical materials as will best withstand frequent washing and repainting, without loss to their absorbent qualities.

It is no longer believed that bacteria have wings and can fly about the room. Contamination is usually due to actual contact. It is possible, of course, for floating dust particles to carry bacteria, and it is even probable that contamination may occur in this way. Such contamination, however, can occur in rooms with the standard plaster ceiling as well as in those with an acoustical ceil-

ing, so this is not a unique property of the latter. Granting that in theory bacteria may enter the pores of the acoustical material just as they do those of the plaster wall, it is extremely doubtful if they maintain their viability longer in the one than in the other, and there is no reason to suppose that they would become mechanically dislodged from the one more readily than from the other. It has been found that dust does not seem to enter porosities of acoustical materials because of the fact that the air spaces contain dead, not moving, air. The dust collecting upon the surface can usually be removed by brushing, vacuum cleaning or washing. Theoretically, a porous surface of any type is a potential danger. Actually the danger is problematic.

How to Avoid Contamination

The modern attitude regarding the possibility of contamination and the proper procedure for avoiding it are well expressed in Bulletin No. 60 of the American Hospital Association upon cleaning rooms or wards, in which the following statement occurs: "Contagious disease is nowdays best handled when doctors, nurses and others in attendance look upon the care of contagion as a question of technique, pure and simple. Practically the same technique applied in the isolation ward as is used in the modern operating room reduces cross infections to a minimum. In other words, the nurse considers as infected only the patient and articles that have touched his body or have touched something else that previously touched his body."

A statement on this subject by a member of the American College of Surgeons may be of interest. "Placing the material on the ceiling where it is out of the reach of patients and workers, and providing it with an enameled surface that can be washed, is undoubtedly a safe practice. The adequate fumigation of the room at the necessary intervals will take care of properly disinfecting the sound absorbing material along with the other articles and wall surfaces in the patient's room."

Acoustical materials of the types tested have been used successfully in a large number of hospitals. Acoustical engineers are alive to the exacting requirements of hospital technique and even in the brief interval since the tests here described were made, several new and better methods of acoustical treatment have been devised.

The subject of sound control and the acoustical treatment of hospitals was comprehensively discussed in the March and April, 1929, issues of THE MODERN HOSPITAL.

What Does the Average Family Spend for Care in Illness?

What does the average family spend for medical and hospital care?

A study was made recently by a large insurance company to determine the amount its industrial policyholders spent for medical and other care in sickness over a period of six months. Questionnaires were distributed by visiting nurses employed by the company to policyholders, chiefly workingmen's families, in industrial centers in nearly every state in the Union. Questions asked included: How much of the workingman's salary goes for the care of the eyes and the teeth? How much goes to the doctor? How much goes to the hospital and to the nurses and how much goes for medicines and operations? Answers to these questions revealed the following information:

Practically every family had to make some expenditure for medical services during this period. Among 3,281 families, consisting of 12,129 persons, only 198 families reported no expenditures.

The total amount spent by all families was $230,907, an average expense of $70 per family for six months, or $140 estimated for a complete year.

Private physicians received the largest share, 43 per cent of the total amount spent. One-fourth of all the money paid out went for medicines and hospitals, about an equal share for each.

Eighty-two per cent of the families used the services of a private physician, and 83 per cent needed medicines during this period. Thirty per cent of the families reported expenses for care of teeth and 9 per cent for care of eyes. Hospitals were used by 15 per cent of the families. More than one-third of the families reported extra household expenses as a result of sickness and injury.

Families that had the services of a private physician paid him an average of $37 over a period of six months. Those who required hospital care paid an average of $60 for this service, and those who had operations paid an average of $74 for this special service.

Cancer Survey of Hospitals Is Recommended by Specialist

A cancer survey of a number of the best hospitals of the country, the survey to be made under federal supervision, is recommended by Dr. Joseph Colt Bloodgood, Johns Hopkins University Medical School, to give to women the correct information necessary for their protection and to standardize the hospitals so that they can render the most efficient diagnostic, radiative and operative treatment.

Doctor Bloodgood, who spoke before the Kansas State Medical Society, quoted forty-year records to show that cancer of the breast in women has passed from the hopeless stage to one preventable and usually curable.

"The investigation of these records," he said, "shows that the education of women has increased the number of cured cases of cancer from less than 10 per cent up to 1900 to more than 50 per cent since 1920. These figures should take the fear of cancer of the breast from every woman who reads them. The woman who has received correct information and seeks an examination by her family physician while she is well, runs less than a 17 per cent chance of a cancerous lump in the breast. She should expect almost 70 per cent chances of a cure."

Planning Hospital Activities to Meet Future Needs*

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WITHOUT attempting an exact definition of a hospital, it may be assumed that the type of institution to which our thoughts are directed to-day is a place especially constructed for the reception and care of sick and injured persons who need medical service and skill and who are, generally speaking, unable to provide such care for themselves.

Although the significance of many hospital problems might be discussed in relation to future developments, it seems best to consider briefly certain intellectual, social and spiritual forces of the present and to discuss their possible influence on the future of our hospitals.

Applying Science to the Individual

The science of medicine is the intellectual force behind the practice of medicine. Remarkable strides are being made in the medical sciences, which are constantly broadening medical practice and presenting new possibilities in the cure of disease and in the alleviation of suffering. It is, however, the accurate and discerning application of science to the needs of the individual patient that represents the ideal in medical practice. To the patient in the hospital, science in the laboratory is of no concern, and it becomes of value—sometimes of life-saving value—only when it can be brought to the bedside.

The process by which new and important discoveries are made available to the individual patient is a chain of several human links, consisting of workers in fundamental science, workers in applied science, manufacturers, perhaps, physicians, surgeons and nurses. Each member of the chain must be scientifically trained and able to comprehend the significance of the other's work. In other words, in order to maintain the highest level of medical practice, actuated by the best that science has to offer, the spirit of science, the constant searching for the truth, must pervade the hospital.

Two influences have been clearly demonstrated as tending to keep alive the spirit of science in the hospital—the pursuit of research and the conduct of medical teaching.

In regard to the value of research from the point of view of its influence on medical practice, it may be said that the contact of research and practice must be constant and intimate, and one must influence the other. In his visits to the wards of a hospital, every physician daily encounters new problems. If these problems can be studied by men trained in scientific research much can be gained. No hospital should take the attitude that it has entirely discharged its obligations or has fully met its opportunities by caring for the patient of to-day. The patient of the future is also its responsibility. This point of view is being more and more recognized, and no great hospital in the future will complacently fail to play its part in the advancement of medical knowledge.

The beneficial influence of medical teaching on the standards of medical practice has been amply demonstrated in countless instances. The medical students of to-day, especially in our university schools, are carefully selected from a large number of well trained college graduates. Their presence in hospital wards adds to the comfort of patients and is of distinct assistance in their care. Students demand, too, the best that the staff has to give to patients, as well as to themselves, and an opportunity to teach in a hospital has always been a means of attracting the highest type of physicians and surgeons to the staff. It may be said that experience plays a definite part in demonstrating the value of research in the development of the scientific spirit in hospitals. The extension of research and of teaching are future possibilities in all hospital development.

How Social Service Has Developed

Social problems represent an ever changing relationship between the activities within and without our hospitals. The development of hospital social service, which in New York has lagged behind that in many other American cities, is recent and has grown out of an appreciation of the fact that illness and poverty, often closely bound

*An address delivered at the annual distribution luncheon of the United Hospital Fund of New York, May 9, 1930.

together, are the greatest causes of social maladjustment. Anyone who penetrates beneath the surface of the medical needs of hospital patients soon discovers that medical treatment alone must fail in some measure unless social diagnosis and treatment are carried out by trained social workers in coordination with the work of the medical staff. This is a problem familiar to all interested in the modern hospital, but it is a field that needs wider development if hospitals are to meet their opportunities fully in relieving human suffering.

The Hospital's Rôle in Preventive Medicine

Closely related to hospital social service is the practice of public health. Hospitals are coming more and more to believe that their functions extend to keeping people healthy as well as curing them of illness. Their responsibility extends also beyond the individual patient and must include members of the family group who may have suffered from contact with the patient.

The hospital of the future must serve as a public health center from which education in hygiene and in preventive medicine must emanate. Opportunities for periodic health examinations should be provided so that every man, woman and child in the community who cannot afford private medical service may have the opportunity of being examined periodically and of receiving advice even though no symptoms of illness are present. In this way, many ailments may be discovered at a time when minor treatment will cure and will make a hospital stay unnecessary.

In other words, the hospital of the future should not recognize its own walls as the limits of its usefulness, but should serve the community through its out-patient department, its social service and its public health activities.

As the hospital's field of work expands, a serious problem of adjustment with private practitioners of medicine is encountered. This can be solved only by mutual confidence and by a true spirit of service.

Another important point closely allied to the social problems of the hospital is the economic problem of the care of patients of moderate means. The adjustment of medical and hospital economics to the present economic conditions of our country is one of the outstanding questions of the day. What the future may bring forth it is hard to say.

Many of the hospitals of New York and of other cities are attempting to solve the problem of the care of patients of moderate means, and at least one new hospital has taken this problem as a basis for its plans. The work of the representative National Committee on the Cost of Medical Care is well known, and the results of its studies are being awaited with interest. It seems evident, however, that hospital service must be provided in the future for people of moderate means who are unable to meet the financial strain of serious illness, and that the cost of their medical care must be met by endowments, just as the cost of education is now met even for the well-to-do. The ideal would be to have each patient pay as much as his financial condition will allow toward the total cost of an illness or an operation and then to make available, by the cooperation of the hospital and its staff, the needed treatment.

The spiritual problems of our hospitals are beginning to be influenced by a new note that is being sounded throughout the medical profession. There is an awakening interest in the mental aspects of medical practice. The spirit of the old family physician, the recent loss of whom has been so frequently deplored, is finding its way back in a new and more scientific form under the influence of modern psychiatry and mental hygiene. The emphasis that is now being placed on the necessity of understanding the patient as an individual is sure to have a profound influence on the hospital of the future. Perhaps half of human suffering (some claim three-fourths) is mental and is not traceable to any organic disease. The mind of man must be better understood, and the spirit of man studied and treated.

Solving the Patient's Psychic Problem

It should be constantly borne in mind by everyone in any way connected with a hospital that the patient on entering the door is probably going through one of the great emotional crises of his life, and deserves all the support, kindliness and consideration that it is humanly possible to give. The psychic aspects of every hospital must have careful consideration, and every human contact should be adjusted to meet the situation of the new patient, who may be filled with fear, worry, homesickness and desolation as well as bodily pain and weakness. Hospital wards, no matter what their character, are filled with psychic problems, and these problems in the future will be met by men trained to study them and to solve them.

In closing, it may be said that the ideal of modern medicine was briefly stated years ago by Marchand: "Seek truth. Discover causes. Learn how they disturb life and how order is reestablished. By science and persuasion preserve men. By science, gentleness and firmness combat death and reduce suffering. Guide, encourage and console in a brotherly and tolerant spirit. This is medicine."

Prescribing Books for Tuberculous Patients

By ADELINE M. MACRUM
Librarian, Tuberculosis League of Pittsburgh

TO SHOW what can be done in organizing a hospital library, with a little time and no money, I should like to tell the story of the patients' library at the Tuberculosis League Hospital, Pittsburgh, a 150-bed hospital, affiliated for teaching purposes with the University of Pittsburgh. Nine years ago I organized the medical and public health library, which I have since administered. While for many years the patients had had small collections of fiction in sectional bookcases in the various wards, no one looked after the books and there was no library service. I felt that this was a pity but did not urge the matter as there was really no space for a patients' library.

In the Fall of 1928 our new hospital building was nearing completion. Every effort was being made to secure the best medical equipment possible for the cure of the patients. It occurred to me that the library department could offer the league a service that would benefit the public and the patients alike. I offered to plan a vocational library for the tuberculous people of Allegheny County, as many of the extuberculous have to learn new occupations after recovery. The books would circulate among Tuberculosis League patients and be a reference collection, with special loan privileges to other consumptives in the county. It would embrace all the material the

These tuberculous patients in the women's ward have the privilege of choosing books or magazines from the truck that is wheeled into the ward every day.

librarian could secure on occupations adapted to the limited powers of sanatorium graduates. There would be a supplementary collection of fiction, biography and poetry.

The hospital agreed to allow me the time to work out the project but would not budget it. The plan was announced to the patients and they were asked for suggestions as to lines of reading they wished to undertake. Commercial studies led in the replies, particularly shorthand, bookkeeping, spelling and business English. Next in popularity was the study of French, Spanish and German. History, psychology and art appreciation followed. Commercial art, aviation, plumbing, insurance, selling and photography were also asked for.

I studied the 1927 bulletin on vocations issued by the National Tuberculosis Association and a 1928 report on vocational rehabilitation and placement published by the New York Tuberculosis Association. With this background and with the consent of the medical director and of the general superintendent of the league, I approached Director Munn of the Carnegie Library to see whether I could effect a lending arrangement for books. After deliberation, Mr. Munn stated that while he and Doctor Maits, director of the city health department, felt that the risk of tuberculous infection through books was practically nonexistent, yet as a matter of public policy and in the present state of popular fear of tuberculosis, they could not risk the public criticism that might ensue. Mr. Munn said, however, that he would be glad to donate extra copies of standard fiction and other material, such as is frequently given to the library but not used. Accompanying his letter was a case containing 100 books.

Books Were Donated

With this small nucleus and a gift of 200 fiction and fifty nonfiction books from a member of the board of directors, I decided to go ahead. A begging campaign was imperative. As commercial studies led the requests, eight of the local business colleges were first circularized, new or secondhand textbooks on the required subjects being requested. The letters netted a new twenty-four-volume set from the Alexander Hamilton Institute, 160 textbooks from the Pittsburgh Academy, fourteen shorthand books from Duff's Iron City College, seven excellent books on drawing and commercial art from the Art Institute of Pittsburgh, a first-rate insurance library of nine volumes from the Equitable Life Insurance Company, three books and much excellent pamphlet material on amateur and commercial photography from the Eastman Kodak Company. The Federal Board for Vocational Education in Washington sent sixty-one pamphlets on specific trades and on vocational rehabilitation. The book stores and book departments of department stores were approached but the returns were meager. Visitors to the library were told of our needs. Definite appeals by radio or newspaper were forbidden by the league, as they might at that time interfere with donations for the building fund of the institution, but one or two newspaper notices appeared, and books began to wander into the library from various sources.

Circulation Has Increased

The library now receives gifts of from fifty to seventy-five books a month and contains about 700 nonfiction books, many vocational, and over 1,000 books of fiction. While this number is small, it grows almost daily, and the use of the books is increasing as more of our people learn the joys of reading. Some idea of their appreciation may be obtained by noting the increase in circulation from an average of 200 books per month from February through June, 1929, to 700 in December, 1,000 in January and 1,400 in February, 1930.

Ambulant patients are allowed to come to the library only between the hours of 11:45 and 1:15, as the hospital authorities feel that they require the services of the librarian to administer the medical library for most of the working day. The assistant librarian is a patient who is able to take exercise and who makes the rounds of the bedfast patients daily. Until recently he has carried all the books himself. I am happy to state that the hospital was finally persuaded to purchase a $48 book truck which greatly facilitates the work and should increase the circulation.

We have been fortunate in the two men who have held the post of assistant librarian. While the first was not himself a reader, he was a good salesman, and his breezy personality acted like a tonic on some of the patients. When this man was discharged from the hospital, his successor was instructed in library lore, and being himself a reader has been even more successful in his contacts with the patients. Although he is quite a young man, his tact and common sense, particularly in the women's wards, have been excellent.

Hospital library work is a fascinating field of labor. Anyone who adopts it as a life-work will be amply repaid not only by the daily interest and inspiration to be derived from the work, but by the knowledge that he is performing a valuable public service that will do much to promote the health, happiness and general welfare of the people of the community.

Planning and Administering the Hospital Budget*

By JOHN A. McNAMARA
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WITH the object of making and keeping money, industry has developed many excellent ideas. Among them is the budget.

When the governments of various communities first adopted budget making a hard and fast rule was established that certain appropriations should be made for the administration of certain departments during the ensuing year and that, come what might, these allotments must not be exceeded.

Big industry then saw the success that the cities were achieving with the budget system and this system was inaugurated generally in business after the World War when retrenchment and economy were foremost in the minds of the industrial leaders of the country. Not quite so hard and fast were the rules laid down for business budgets, but department heads were given to understand that overdrawing their allotment indicated to stockholders poor management and that underdrawing was perhaps a sign of equally poor management, although less offensive to those whose money was being spent.

That money could be saved by a budget system, that business became more of a certainty and less of a speculation and that hazardous guesswork was removed by definite allotments for certain expenditures became self-evident, and astute hospital superintendents were not long in taking the matter to their respective boards for discussion. In this way budgets in hospitals became as common as the admission of patients and as much of a routine procedure as record taking.

How to Plan a Budget

The budget is simply fitting your pattern to your cloth. It becomes the appropriation of certain set expenditures to the estimated income during the year prepared for. If the previous year has shown that your income was $100,000, it is reasonable to expect that your income for the ensuing year will be a like amount, provided the $100,000 was not in the form of endowments, contributions or some other unusual source. In other words the $100,000 must be earned income plus income from already existing endowments, city appropriations, amount to be expected from community chests and other fixed sources. By reference to previous expenditures it becomes an easy matter to find out how much each department spent during the previous year. If this expenditure totaled $100,000 the whole task resolves itself into a simple matter of division. However, a proper analysis of the expenditures by departments may reveal that some unwise and uneconomic outlays were made in one department and unnecessary and injudicious economies practiced in another. By the budget system this condition is revealed and can be corrected. In other words, by the budget system justice is more easily administered to each department, yet the grand total of expenditures remains the same.

Working Out Departmental Budgets

Those who have made a study of the budget systems in hospitals strongly advise that department heads be allowed to work out their own budgets each year and submit them to the superintendent for approval. This plan is much fairer than to hand to each department head an arbitrary statement of appropriation. If the department head makes up his own budget he will take pride in the matter and will see to it that he keeps well within the budget in order to show efficient management of his department. It has been the practice in some hospitals to arrange a contingency fund to cover deficits that might arise in certain departments. This has been found a poor policy, however, as department heads often feel that it does not matter if they exceed their appropriations because they can draw upon this contingency fund.

The division of the total budget according to departments is a matter for the superintendent and the board of trustees to decide. Some hospitals have as many as twenty-five different divisions, but for the average hospital fifteen divisions should be sufficient.

As an example of the proper subdivisions, I

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shall quote those shown in the recapitulation for Mt. Sinai Hospital, Cleveland. In the hospital proper comes administrative; housekeeping; laundry; linen and sewing room; heat, light and power; maintenance and repair; dietary; commissary; library and medical records; medical and surgical; anesthesia; x-ray; laboratories; nursing; training school; housing of personnel; social service. In the out-patient department are the following subdivisions: administrative; social service; medical and nursing service; orthopedics and massage; dental; eye; night clinic; prenatal.

These subdivisions have been made with considerable thought. Before the appropriations have been determined the salaries paid to each member of each department have been listed. For instance, under laundry come the salaries for the head laundry man, a washman and thirteen laundry assistants. Under dietary come twenty-eight different classifications, from the dietitian down through cooks and maids and, finally, the cleaner.

How Kitchen Budget Is Divided

In the kitchen budget, besides the salaries paid, come these general classifications: food, gas and electricity, kitchen equipment, china and dining room equipment, tray covers, napkins and miscellaneous. Food is again divided into five general classifications as follows: meat and fish, milk and cream, butter and eggs, groceries and bread, fruit and vegetables.

It must be understood, however, that these departments and subdivisions are by no means set standards. Each superintendent must work out for himself how the budget is to be divided. There is a divergence of opinion on several of the headings. For instance, many superintendents list the pharmacy separately, while others prefer to consider the pharmacy as part of the medical service. Laboratories are sometimes divided into biochemical laboratories, research laboratories and pathological laboratories and there are other divisions that present individual problems. Shall the emergency room come under a separate classification or shall it be part of the medical service? Do ambulances and garages properly come under maintenance and repair?

One matter for decision is the purchase of new equipment and the replacement of worn-out apparatus. It is quite possible to look ahead a year and to provide for these items at the beginning instead of running the chance of suddenly finding out that something new is needed during some month of the year. It should be just as easy to estimate for new equipment as for the other expenses. In fact the equipment of all departments should be systematically inspected at least once a year with a view to replacing or repairing it. The prudent ambulance driver looks over his ambulance much oftener than once a year to see that all parts are in working order and to ascertain what parts should be replaced before an unexpected breakdown occurs.

Along with budgets and their making comes the subject of inventory and control. The perpetual inventory, the daily check upon expenses and income and the monthly tabulation of each department's expenses, is perhaps the basic factor in the proper and efficient administration of hospitals. If, when the budget is made out, the dietary department is assigned $8,000 a month and it is found at the end of any one month that the expenditure has amounted to $12,000, it is evident that something has gone wrong. An investigation can be made when it will do good instead of at the end of the year, when it may be found that the budget has been exceeded by 50 per cent and there is no chance of correcting this condition. In other words, the budget plus the perpetual inventory and daily report gives the superintendent a perfect check.

In the administration of the budget, the superintendent must teach his department heads to use their judgment in meeting emergencies. Ironclad rules requiring that the department head meet the budget exactly every month have no place in successful budgetary administration. In the dietary department, the peaks and valleys of the hospital's occupancy will have a decided effect upon the purchase of food supplies. The maintenance crew must make repairs regardless of the month in which they become necessary. An unusually severe winter will increase the coal bill until it exceeds the budgeted allotment.

Monthly Analysis of Department Expense Needed

One dangerous tendency of hospital executives is the habit of interpreting and administering the budget as a unit rather than as a composite of departmental budgets. True, the administrator can be satisfied if he completes the year with a balance for the entire institution rather than a deficit, but the mere fact that this occurs does not necessarily relieve department heads of the responsibility for efficiently administering their departments. The administrator should check each department's expense against the departmental budget. This monthly check will have a good effect upon department heads. On the other hand, once it becomes known that the superintendent does not care about departmental balances but is interested solely in the composite balance, department heads may take advantage of this fact.

Analysis of the monthly expenditures is essential for efficient control of all departments, even though the institution as a whole may show a balance. A balance in one department should never excuse a shortage in another, unless a good reason for it can be advanced.

These are the important features of the budget. But the question that still remains uppermost in the minds of superintendents is: "How shall I go about installing budgetary control of my hospital, and how shall I draw up the budget?"

Formulating the Budget

A knowledge of the past financial performance of the institution is essential for proper budgeting. If a budget has been employed in previous years, this information is readily available in a form that makes comparisons both easy and valuable. If the hospital is preparing its first budget it can make use of the more or less detailed financial statements that have been prepared in previous years.

Price trends, past, present and future, must be taken into consideration by the budget maker. This warning applies especially to the dietary department. Close students of the market will be able to formulate the dietary budget with reasonable accuracy.

The budgeteer must likewise predict probable growth or decrease in the work of the hospital. Changes in bed capacity and the addition of new departments or of new functions to existing departments all must be considered. Department heads should be supplied with a forecast of the probable number of ward and private room days of service, the average number of employees and similar data, before they submit their budget estimates for the new year.

It is well for every department head to have a file headed "Budget Reminders," so that as needs present themselves during the year, they may be recorded for presentation at budget making time. These reminders are particularly valuable in relation to items of new equipment or replacements of equipment.

After the decision to establish a budget has been made, the superintendent should call a preliminary conference of department heads to enlist their support. This meeting should be held before the beginning of the fiscal year to permit careful planning and study of needs before the budget is adopted. If department heads do not know their departmental costs, they should confer with the accounting department, and obtain the necessary data.

When departmental expenses have been estimated, the figures should be reviewed by the superintendent to make sure that they include contemplated changes or enlargements in existing facilities for the period covered. After the expenses have been approved or revised, usually in conference with the department head, they should be summarized and compared with the estimated revenue.

It is a fatal mistake in budget making to overestimate income. In presenting the budget to the board the superintendent naturally desires to make a good showing. The estimate of expenditures will usually be accurate, but the estimate of income will often be inflated to produce a low paper deficit.

Some unforseen contingency may arise that will prevent the hospital from producing its estimated income. An epidemic may cause an influx of free cases into the institution. This causes a reduction in income in inverse proportion to the increase in expense.

The final form of the budget should be presented to the finance committee of the board of trustees, who should study the income schedule and the budget. Changes should be made only with the consent of the superintendent, who knows best the points at which changes may be made with the least injury to the work of the institution. The finance committee should then present the budget to the board for adoption.

Comparison of Monthly Budgets Important

As soon as the budget has been approved by the board, several certified copies should be prepared, one each for the superintendent, the purchasing agent, the steward or dietitian, the accountant, the president of the board, the executive committee of the board and the finance committee of the board. The superintendent should also send to each department head an abstract from the budget showing the final appropriations made for his department.

All this activity is merely preliminary to the real control of the institution through the budget. Compilation of monthly budget reports that compare actual income and expenses with budgeted income and expenses is essential for successful budget administration. Because these reports should go to members of the board of trustees and to all department heads, it is usually desirable to issue the report in mimeographed form. It is a mistake to attempt to economize by making only a few typewritten copies of monthly budget comparisons. Good budget practice requires that he who authorizes expenditures should see the financial results of his work. If there are enough reports for general distribution this aim will be accomplished.

The Administrator's Job and What It Entails

By FRANK E. CHAPMAN
Director, Mt. Sinai Hospital, Cleveland

BEFORE any discussion of the duties, the responsibilities and the requisite equipment of the administrative head of a hospital is undertaken, it is well to define a hospital that there may be no misunderstanding of the type of institution to which the individual is to be assigned.

This article will discuss the functions of the administrative head of a community hospital, a type of institution that accepts full responsibility for four basic functions: (1) care of disease; (2) instruction on disease; (3) study of disease; (4) prevention of disease.

In attempting to chart the performance of the directing head of as complex an organization as is indicated for this work, any attempt to outline in detail the duties or the equipment of the individual assigned to the position is presumptuous. This individual's work cannot be charted or scheduled. The ramification of his activities and the multitudinous problems to which he must devote himself are beyond the scope of scheduled work. It is possible, therefore, only to outline in a general way some of the more important phases of the work, and to attempt to establish the philosophy of the job rather than to define it.

What are the major duties of the position? It is proposed to outline a schedule of these duties and to discuss the following aspects of them: executive; legislative; judicial; professional; educational; community minded; financial; medical; social.

Executive Duties

An analytical evaluation of these nine subdivisions will immediately call attention to the fact that to combine executive, judicial and legislative functions in one individual is to produce a governmental abnormality. The criticism is sound on a theoretical basis, but practically it is believed they can be combined efficiently as far as the operation of a hospital is concerned.

Executive: Of necessity, the functions of this group must be further subdivided.

The handling of personnel is an important executive function. Industry the world over is recognizing that intelligent attention to the details of handling personnel and an earnest attempt to fit individuals to jobs are important activities of the head of an organization. Personnel management in all of its details is difficult. With the appointment of department heads, the possibilities are that the ranking member of the organization will lose personal touch with individuals in the organization. This situation is to be deplored and is a condition that produces inefficiency in management perhaps more often than any other one condition.

Choosing Department Heads

Primary attention should be paid to the selection of department heads, who in addition to their fundamental qualifications—qualifications that are requisite to the consummation of the job to which they are assigned—also have an inherent desire to be helpful to members of their organization. Selections having been made with this point in view, it is incumbent upon the head of the organization to conduct himself in such a way that details of this kind will not be overlooked in the everyday routine and pressure of work, and to make himself available for conference or discussion of professional or personal problems presented by individual members of the personnel. Emphasis should be placed upon the fact that all orders covering work should be transmitted through department heads. This prerogative should never be sacrificed. This does not keep the director of the institution from placing himself on a more or less personal basis with members of the personnel.

Departmental conferences must not be overlooked. The interrelationship in the departmental activities of an institution are so intimate as to make necessary the closest understanding of the problems of every department. Many of the difficulties experienced in securing proper contacts and cooperation between department heads may be easily overcome by conferences designed to eliminate personalities and to discuss principles. It is amazing how problems will disappear when they are handled in this way.

Positions must be scheduled. A person who has no knowledge of the job assigned and who does not understand its detailed mechanism cannot be expected to be efficient. With the change of personnel that occurs in any organization, and with the constant necessity for training new personnel in given activities, the establishment of a detailed schedule of positions designed to be a guidepost to various individual jobs—an arduous task at the inception—will compensate many times over for the work involved.

Daily inspection is necessary. The purpose of daily inspection is twofold: to acquaint the administrative head of the institution with general conditions in the plant as a whole and to assure the personnel that an interest is shown in every individual job by the front office. These inspections necessarily take time.

Legislative: Self-evidently, the board of trustees of a hospital is the legislative group for general policies of operation, and the medical council or the executive committee of the staff is the legislative group for strictly diagnostic and therapeutic procedures. But for purposes of advice and counsel, the administrative head of a hospital must be the functioning unit of both of these groups, assisting by guidance and suggestion in the formulation of all legislation that is established. Furthermore, in conference with department heads, it is necessary for the administrative head to formulate legislative measures for the internal management of the institution. Therefore, the legislative activities of the administrator of necessity are an important part of his function.

Just a word as to the soundness of legislation. Regulations that are established arbitrarily and dogmatically may be enforced with a great deal of effort but the reaction to that type of legislation is indeed of doubtful value. Legislation by education is unquestionably the more sound procedure. This may entail greater effort and in the beginning may not be as productive of quick results as the former method, but over long periods it is more far-reaching in its beneficial effects.

What Training Shall the Administrator Have?

Judicial: The judicial function of the administrator consists of passing upon violations of legislative measures or of interpreting to the component elements of a group the intent of certain legislation. The type of judicial approach is also worthy of mention. High-handed arbitrary rulings are never constructive. Time spent in explaining in detail the philosophy of the ruling, and in attempting to convince interested individuals of the correctness of the policy, returns accrued dividends.

Professional: The basic educational requirements of the administrator of a hospital have been discussed pro and con. The discussions divide themselves among those who contend that the hospital can be administered only by a doctor, those who believe a nurse makes the best administrator and those who believe a lay administrator is the best. Certainly, so controversial a point as this has no place in this discussion, but there is a common ground upon which all can meet, and that is that so complex an organization as a hospital must have someone trained in hospital management in order that the operating plant may be run efficiently. Whether this training shall coincidentally be medical training, nurse training or commercial training is of little importance. The important thing is that the administrator shall be equipped to meet the diversified and complex problems of the hospital and that he shall have at all times the conception of the professional demands that are, after all, paramount in a health agency of any kind. A basic understanding of certain fundamental sanitary and hygienic laws of course is prerequisite. The diagnosis and therapy of disease are not within the realm of the hospital administrator, but it is necessary that he be capable of interpreting professional demands and that he have a desire to meet those demands within the limits of his capacity.

The Education of Nurses and Interns

Educational: The obligation assumed by the hospital in accepting interns, in operating a training school and accepting student nurses for training and in training dietitians, technicians, social workers, physiotherapists and various types of health workers demands that the administrator accept the basic educational point of view towards those individuals. Maintaining a training school primarily for the purpose of securing supposedly cheap help, condoning the presence of interns on the wards because they are a requisite to the professional approval of the hospital by rating agencies, and introducing student dietitians into the dietary department to secure cheap supervisory help were accepted practices in the past. These practices, however, are coming to be more and more recognized as a poor principle of operation and as an uneconomic basis for securing personnel.

The department of nursing must be operated with due recognition of the obligation to train students, and their assignment to duty must take into consideration the necessity for classroom work and study. Well planned, well balanced curricula must be developed and adhered to.

The intern must be welcomed into the fold of

professional workers and attending staff members must be required to give him those things he is spending a year to learn. The student dietitian must be accepted on a planned course of study. The same is true of the technician, the physiotherapist and the social worker. After all, this group of health workers is one of the reasons for the existence of a hospital. The proper training of this group, therefore, requires thought and energy.

Interpreting the Hospital to the Community

Community minded: There are many who interpret the problems of the hospital as self-contained problems, but in the broader sense the hospital is the health center of the community it serves. As a result, the administrative head of that hospital must accept as an obligation intimate contacts with all of the health problems of the community. He must participate in community life not only to promote a broad understanding and the acceptance of health problems but also to acquaint the community with the institution he serves.

Financial: The present day financial problem of the average hospital is a major one. With the growing complexities of hospital operation there is the consequent increase in operating cost and the necessity for financial control that did not exist in years past. An ability to establish statements of accounting, financial, professional and vital, an ability and an inclination to analyze reports of performance, an ability to get from those reports the trend of progress in the institution, the desire to operate upon a sound budget of both income and expense, and a wish to analyze performance currently are all requisite to efficiency in a larger problem.

The administrative officer should have a purchasing sense. He need not necessarily be the one who does the buying, but he should have an ability to evaluate market trends and should know when to anticipate requirements. The person who is able to evaluate quality, to establish standards of purchase, to comply with accepted purchasing principles will bring to the organization a degree of proficiency that would be lacking without this understanding.

Mechanical: The term mechanical here is used in the broader sense, although for a hospital of any size whatsoever the mechanical problem in the strict sense of the word is of the utmost importance. The administrator who would competently and efficiently supervise a departmental activity must be able to evaluate the problems of that department. A knowledge of the relative value of fuel and of the procedures that are indicated in the management of the maintenance and repair department contributes to the good of the whole.

And last, but by no means least, this entire activity must be administered with a large and abundant supply of social understanding. The hospital is created first and foremost for the care of the patient—the patient subject to all the human frailties, the patient laboring under stress and anguish, the patient who in a vast majority of instances is faced with a financial problem beyond his capacity to meet. Regulations for the conduct of that patient must be administered with a human understanding that has a capacity of adjustment that is without limit in its scope. The admitting procedures must be so established as to make available various priced accommodations within the ability of the patient to pay and an adaptability of financial arrangement that will meet the need of a well-to-do patient, the patient of moderate means and the poor patient.

The social point of view of the administrative officer must include the patient, the community and the members of the personnel within the organization and this point of view must be supreme at all times.

The Weakest Point About the Large Hospital

"The weakest point about the large hospital of to-day is the lack of strict operating room control," declares Dr. Southgate Leigh, Norfolk, Va., whose observations on infections are published in the *Bulletin of the American College of Surgeons.*

Without positive control, he says, no hospital is safe and no operative case is safe. He mentions certain fundamental principles that must be observed:

"Operating rooms should be kept clean. To that end ungowned persons must be kept out and septic discharges caught and promptly destroyed, everything soiled by those discharges being immediately antisepticized. The ungloved hands of nurses and doctors must not come in contact with such discharges. Unless the operating room is kept really clean by the most extreme measures, it is far safer to operate on clean and dirty cases in separate rooms. The careless handling of septic dressings and discharges, the presence of uncleansed furniture in the room and the admission of ungowned people may all combine to make the operating room a nest of infection.

"The weak point in many operating rooms is the gloves, which are usually incompletely sterilized. Unless thoroughly steamed, gloves should not be used indiscriminately in clean and dirty cases, and in addition to the partial heat treatment, should be soaked after putting on the hands, in a very strong antiseptic solution, such as bichloride 1 to 250 with a weaker solution following.

"Infection of clean wounds is nothing short of a crime, and is due always to carelessness or ignorance. Inexperienced doctors and nurses should be warned of the dire results that may follow such errors."

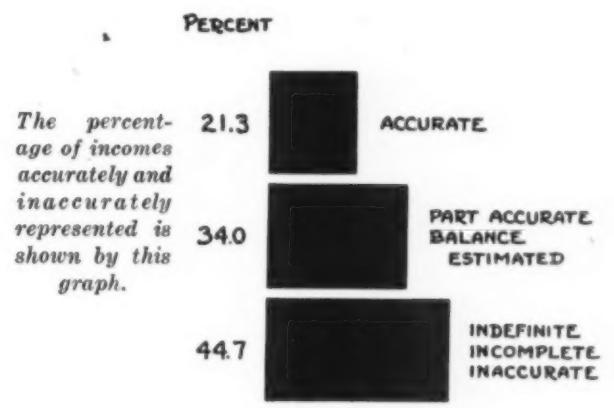
What Is the Relation of O. P. D. Income to Expense?*

By HENRIETTA D. BABBITT
United Hospital Fund of New York

ALTHOUGH the accounts for forty-seven hospitals in the United Hospital Fund study were more accurate for income than for expense, nevertheless only about a fifth—21.3 per cent—of the hospitals kept the accounts for the out-patient department income separated by admissions, special fees and monies received through endowments or special funds. Nearly half—44.7 per cent—of the group did not keep these accounts segregated but included the out-patient department income with the general receipts of the hospital. Approximately three-fourths of the hospitals in the study showed incomplete accounting of the out-patient department income.

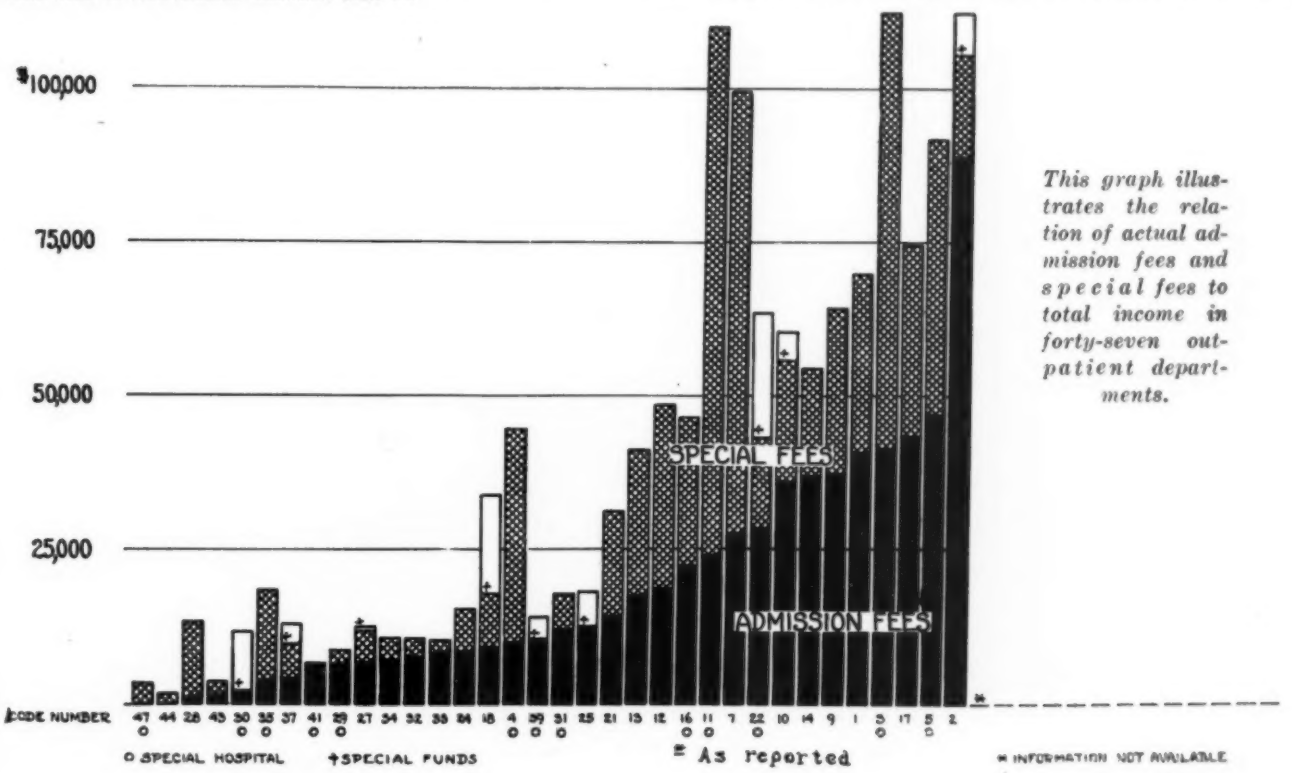
It was shown in the study that there were two kinds of income, the earned and the unearned.

The earned income was comprised of three distinct classes—admission fees, special fees and sale of medical and surgical supplies. The twenty-five or fifty-cent admission fee, in most instances, allowed a visit to one of the general clinics and nothing else. The special fees varied from a few cents to several dollars depending upon the type of service. Part of these variations were due to the difference in operation. Uniformity in the charges made to patients for the



The percentage of incomes accurately and inaccurately represented is shown by this graph.

*This is the second of a series of three articles relating to out-patient department accounting in forty-seven hospitals. The first article, "Where O.P.D. Accounting Methods Are Lacking," appeared in the June issue of THE MODERN HOSPITAL, page 95.


$100,000
75,000
50,000
25,000
SPECIAL FEES
ADMISSION FEES
CODE NUMBER
47 44 28 43 30 35 37 41 29 27 34 32 38 24 18 4 39 31 25 21 13 12 16 11 7 22 10 14 9 1 3 17 5 2
O SPECIAL HOSPITAL
+SPECIAL FUNDS
As reported
* INFORMATION NOT AVAILABLE

This graph illustrates the relation of actual admission fees and special fees to total income in forty-seven out-patient departments.

x-ray and laboratory work was lacking. Some hospitals allowed a doctor on the outside to run the x-ray department on a commission basis, while some of the other organizations maintained their own staffs. There was no standard way of comparing the various types of work done in the laboratories. In one hospital the work was sent out to a commercial firm, in another organization the work was sent to a near-by hospital laboratory while in other institutions a laboratory staff was employed. As many variations were shown in the duties and qualifications of the personnel employed in the x-ray and laboratory departments as there were in the charges made to the patients.

Additional income was derived from the sale to the patient of drugs, medical and surgical supplies, braces, glasses and other appliances. Here again the charges for the drugs and medicines covered a wide range. In some out-patient departments they were sold at cost, while in other hospitals, if the patient had a bottle, the medicine was free after the first filling. Another institution made a charge for the bottle and filled the prescription free. Even within the same organization practices varied from time to time. The medical and surgical supplies sold to the patients in nearly all the hospitals were nominally priced. Occasionally there was an increased charge for some special kind of dressing. Hospitals that sold braces to patients did so at cost or a little below cost.

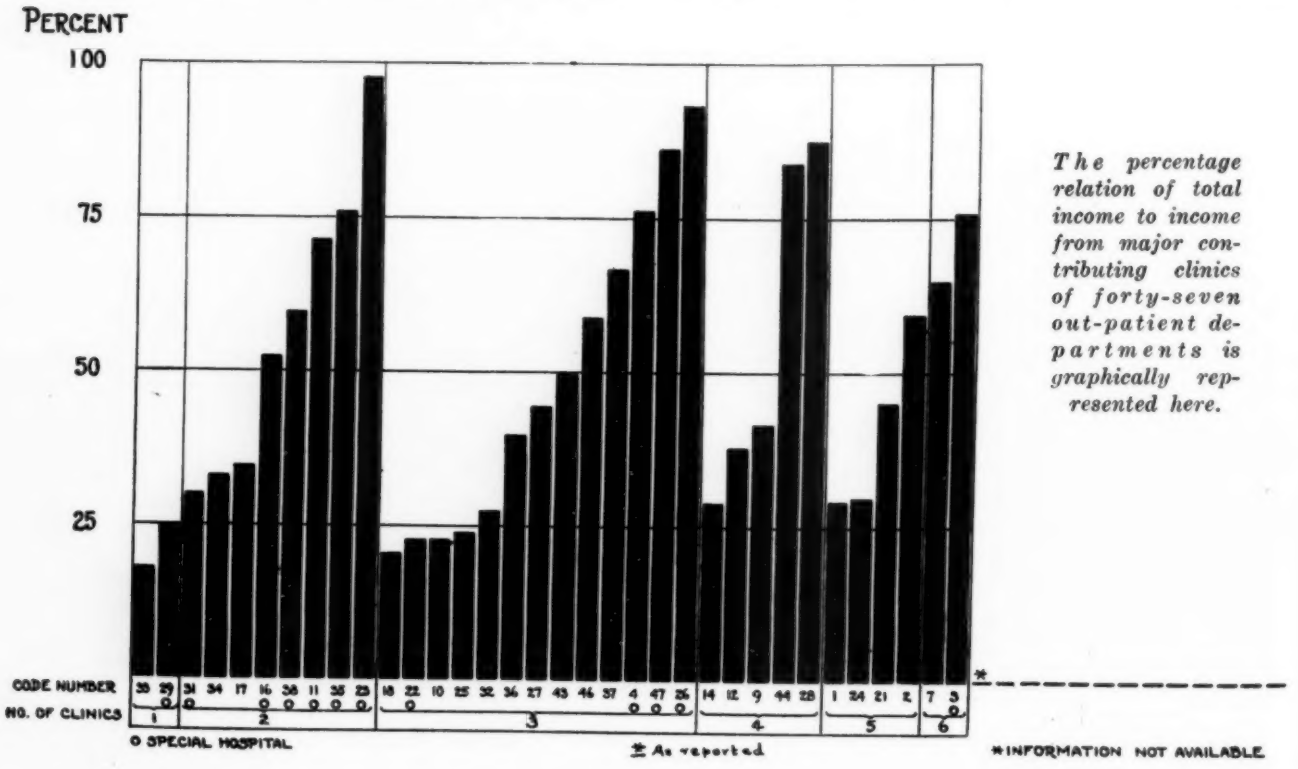
The practice of selling glasses to patients also varied greatly but the charges to patients were supposed to be at approximately cost or a trifle above the cost. This, however, was hard to check, because in one institution space was granted to a firm and the hospital received a percentage of the net receipts. In another the patients were sent to a firm that gave the out-patient department reduced rates. In still other organizations a staff was maintained by the hospital. The actual or true costs were problematical. It can be seen that real comparisons of costs between institutions were unsound.

When the fees for the special services were collected in the separate divisions or departments it was observed that these receipts were included in the total hospital income and were not set apart for credit to the in-patient or the out-patient sections. More accurate records were kept of the earned income when the out-patient department collected the fees for x-ray, laboratory and the other special services with the help of a cash register.

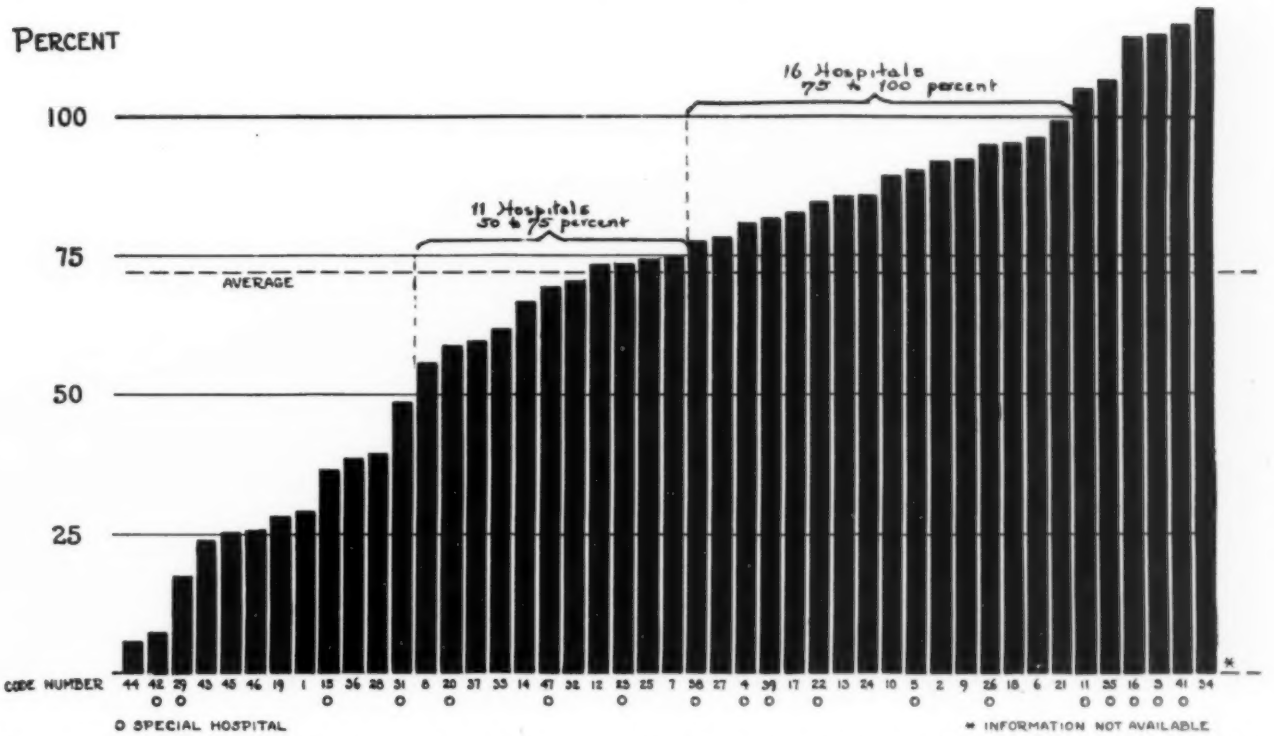
The unearned income comprised the interest from endowments, special funds and donations.

Prior to this study of the out-patient department accounting, little attention had been given to the amounts contributed and whether these were to be used for the out-patients or in-patients. Most of these funds were given directly to the hospital and were applied to the out-patient department only for its deficit.

Special accounts were kept for the various en-



The percentage relation of total income to income from major contributing clinics of forty-seven out-patient departments is graphically represented here.



This figure illustrates the percentage of total income and of the total cost of operation in forty-seven out-patient departments.

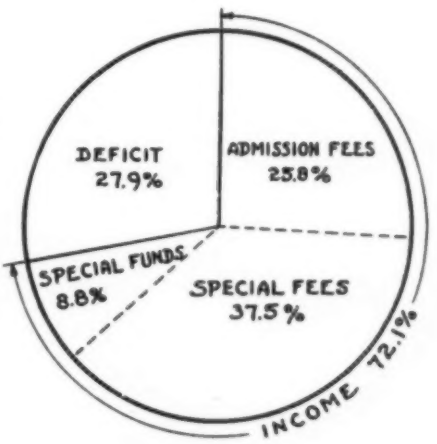
dowments, for special funds and for donations but these accounts seldom showed what part, if any, was used for the out-patient department work. The study revealed that a large part of the "special fund" income was for social service work and was not included in the regular accounts.

It was learned that in one hospital the interest from some two million dollars was available for "free work." The whole of this revenue had been used for the ward patients because this was considered the only free work. It became evident during an interview that free work was also done in the out-patient department and that this division should receive its share of the money.

It might be assumed that the hospital administration would have data showing the clinics or services that produced the larger portion of the out-patient department revenue but it could hardly be expected that such information would be on a comparable basis with other institutions because of the many differences in the accounting methods. The study showed that almost one-third of the forty-seven out-patient departments received the greater part of their earned income from the x-ray, laboratory and pharmacy, with the x-ray as the principal contributor. It also revealed that there were thirteen hospitals in which three major clinics provided the largest part of the out-patient department earnings. In each of five institutions, the three major clinics produced about 25 per cent of the income while in four other hospitals they provided approximately 50 per cent of the out-patient department receipts. The three clinics invariably included pharmacy and x-ray, although the combination varied greatly and contained such specialties as laboratory, physiotherapy, arthritis, orthopedics, venereal disease, immunology and dentistry.

From time to time there has been a question as to whether out-patient departments have been "making money." The analysis of the study data showed that only 72.1 per cent, or approximately three-quarters, of the total expense was met by the income. This was an average of both the general and special hospitals, and only a slight difference appeared when the two types were averaged separately. In eleven hospitals the income equaled 50 to 75 per cent of the expense; in sixteen, from 75 to 100 per cent; in six hospitals the

The relation of the deficit to the total income in forty-seven out-patient departments is shown here.



income appeared to be greater than the expense.

When the subject of the relation of out-patient department income to its expense was considered, the data showed that the admission fees of twenty-five and fifty cents paid about one-quarter (25.8 per cent) of the out-patient department expenses. The special fees contributed over another third—37.5 per cent—and the special funds or endowments paid only 8.8 per cent of the out-patient department expenses. When all items of expense were considered, out-patient departments did not "make money" and the hospital carried the deficits through the general funds.

What a Cost Study Revealed

The average cost for all the forty-seven hospital out-patient department visits was eighty-three cents, while the most frequent cost per visit for the individual institution was about a dollar.

The average income for the forty-seven out-patient department visits was sixty cents and included both the earned and unearned (special fund) income. The highest income per visit for any individual organization was $1.77 which was for a special hospital where the fees were unusually high and the costs were likewise exceptional.

The variation in the average cost per visit was due partly to the dissimilarity in the organization, character of equipment and extent of the medical teaching, and partly to the diversity of hospital standards and methods of accounting. In order to determine where the differences occur a careful analytical comparison would have to be made of expenditures as well as earnings by departments or subdivisions, such as laboratory and x-ray. (It has been stated on good authority that such accounting records would reduce the auditing time 50 per cent.)

The difference between the income per visit and the cost per visit was shown as the "loss per visit." There were forty-one hospitals in which this "loss" varied from two cents to $2.37. An analysis of the "loss per visit" would be decidedly enlightening but detailed data were not available for this.

Many instances of "loss" were due to the failure to collect from the city for the public charges. There seemed to be less of this in institutions where there was a budget plan in operation.

It has been stated that many benefits can be derived from the budget system. It can promote wise economy and reduce expenses; it can determine the cost of operating; it can provide a fairly dependable income estimate and individual departments can know their income and cost and so help eliminate waste. By setting up standards of performance and budget costs, a measurement of efficiency can be secured. It is well known that control and coordination are as vital to management as debit and credit are to accounting. Good management requires constant supervision and it must be based on accurate information, so standardized as to enable comparisons between methods and results in the institution over a long period of years. The advantage of a cost system is that it promotes more effective control and coordination. It can never be considered an end in itself, but merely an aid in the diagnosis of administrative ills. The management must supply the cure after it has been provided with the proper diagnosis.

To summarize briefly, it may be said that practically three-quarters of the hospitals in the study had incomplete accounting of the out-patient department income, although the out-patient department income records were more complete than the expense accounts; that on the average the forty-seven out-patient departments were not making money because the income met only about three-quarters of the expense; that there were wide differences in the "cost per visit" due partly to the difference in organization, in the character of the equipment and in the extent of the medical teaching and partly to the hospital standards and methods of accounting.

A Valuable Addition to the Nurse's Library*

"Hospital Economics for Nurses" by Phoebe Miller Kandel, formerly director of nursing education, state of Nebraska, and now professor of nursing education, Colorado State Teachers College, Greeley, arrests attention by its title. The subject matter, of much importance to hospitals and to all who serve in them, may none of it be new, the novelty consisting in the divorcement of specialized problems from a general textbook.

This may be a progressive step. By no longer treating these problems incidentally, greater emphasis is given to each of them. The separation may also be of value to future writers of textbooks on nursing in that it will allow them to concentrate on the technique of the nursing care of the patient.

Miss Kandel has covered a large field and has discussed in detail the daily tasks familiar to hospital workers. Supplies of all kinds, their selection and method of use; food; cleaning and management—all have their place. The pharmacy, the laundry, the central linen room, a ward unit and the nurses' residence each is discussed in a separate chapter. Following the introduction, the first chapter deals with the hospital itself and discusses its place in the community, its growth and its needs.

The book should be in every nurse's library. To the instructor conducting classes in hospital housekeeping it should be of value for her own use and as reference reading for members of her class.

*Kandel, Phoebe Miller, Hospital Economics for Nurses, Harper and Brothers, New York.

What the Superintendent and the Intern Owe to Each Other*

By LOUIS J. FRANK
Executive Director, Beth Israel Hospital, New York City

ONE of the more subtle but at the same time vitally important problems of hospital administration is the relationship that exists between the superintendent and the intern staff.

In this discussion of such relationship, it is necessary not only to touch upon the larger implications of the obligations that the interns owe to the institution and that the superintendent, as the representative of the institution, owes to the interns, but also upon many intimate details engendered by personal equations.

Interns are a part of the hospital family and it remains for the superintendent to worry not only about their ethical and professional training but also about their intimate personal affairs and trifling disciplinary infractions.

How many superintendents have in the last six months had upon their desk a colorful account of some intern's prank, for which it was necessary to take disciplinary action? How many have sometimes let loose a tirade of reprimand upon an intern for violation of a hospital rule?

These interns are at once the hope and despair of the medical profession and of course of any superintendent with an interest in the future medical staffs of his institution.

How the Older Doctors Can Help

A great deal is expected of the older members of the medical staff and their conduct is supposed to have and often has a great influence upon impressionable young interns. Medical men themselves, however, are far too harassed to be able to devote much of their time to the training of their interns in the finer points of medical practice. It devolves, therefore, upon the superintendent to keep a watchful eye upon these neophytes in medical practice, and occasionally to call the attention of the older doctors to their own laxity towards the interns and of their responsibility to act as father confessor, mediator, disciplinarian and counselor.

Since there are innumerable facets of the interesting relationship that exists between an intern and a superintendent, it would simplify matters to divide this paper into two parts, the first being given over to a consideration of what the intern owes to the superintendent as an individual and as the representative of the hospital and the second to what the hospital and the superintendent owe to the intern.

We expect from an intern strict adherence to the rules of the institution, a respectful attitude towards the nursing personnel, a conscientious application to his task and a humane regard for his patient.

Classifying the Intern's Duties

There are times when the line drawn between what might come under the classification of the duties of an employee or those of a physician attached to the house staff is indistinct. In such cases, the institution has a right to expect from the doctor intelligent cooperation and a willingness to work, even though what it required might be done by a technician or by a hospital-wise clerk.

This does not imply, however, that the intern is to be expected to perform clerical work or to shoulder the responsibility of performing duties that are intended for technicians, but it does imply that he should be willing to adjust himself to the requirements of a particular situation, to perform a piece of work when an emergency arises without childish concern as to whether or not it is a sufficiently dignified task for a member of the house staff.

An intern has a great deal left to his discretion. He can go through an entire period of hospital training without breaking any rule and yet, at the same time, be wasting his effort. Much depends upon his personality and judgment. In order to profit completely, he must be alert. He must have initiative and imagination.

If an intelligent and conscientious man on the house staff is assigned to a case, whether a private case or one in the ward, his observations can prove of considerable assistance. There is no reason why we should not expect the rigorous standard of intelligent and conscientious service

*Read at the annual meeting of the New York State Hospital Association, Coney Island, N. Y., May 8, 1930.

that certain interns seem equipped to perform, while others seem helpless and inept. A valuable intern is one who takes an interest in other cases besides those under his immediate care. It is amazing to hear an intern explain that he lost track of a certain patient after he was transferred to another service. The incongruity of neglecting to follow up a patient originally in his charge apparently escapes the young man. He is so busy, he will explain, and you are tempted to ask, busy with what? This very intern is usually the type of man who will complain about the lack of educational opportunities in the hospital.

Nothing is more amusing than to hear interns pass judgment upon the older men of the staff. In a few succinct, sardonic phrases, they can dispose of the reputations of men whose experience and clinical acumen make the medical equipment of their young critics puny by comparison. As the intern grows older, he begins to realize that he knows much less than he originally thought. This is by no means a minor problem in the hospital. It seems to be the prerogative of young interns to have a self-assurance that brings despair to the heart of the older men.

A clever attending physician with a parental interest in young interns, with the support of the superintendent, can accomplish miracles in developing the proper humility in an arrogant young man just out of medical school. I believe that neither the medical board nor the superintendent of the average hospital gives enough thought to attempts to instill into the intern the student's humility without which Semmelweiss, Holmes, Ehrlich, Osler and Welch could not have performed their work.

It is in the hospital that interns first begin to learn of the responsibilities of the physician for his private patient, and it is only by their intelligent and sympathetic attitude towards patients that they can begin to learn the technique of the bedside manner and the sympathetic attitude expected by the private patients.

Dealing With the Patients' Relatives

It is important that interns learn how to deal with anxious relatives of patients and that they exercise the consummate tact and delicacy necessary to win their confidence. An intelligent and sympathetic approach by the intern has often eased what might have been an embarrassing situation. If in discussing the condition of a moribund patient with the relatives the intern maintains an intelligent and sympathetic attitude, it is easier to obtain permission for an autopsy.

In short, the superintendent expects the intern to have dignity and a sense of professional decorum. He expects a willingness to cooperate in the performance of duties which, while by no means uniformly pleasant, are necessary.

The superintendent expects the intern to show deep interest in the progress of the patients under his care and to make use of the experience he is obtaining without in any way discommoding the patient or the hospital. He expects him to understand the mechanism of the hospital and how he fits into the general scheme of things as well as to maintain the intelligent attitude of a younger man who will one day be expected to take charge and assume responsibility.

Choosing the Intern

There has been a great deal of discussion lately about the open and the closed hospital and about the need for making hospital facilities available to the physician in the community so that he may perform work under supervision and at the same time be in touch with what is in most cases the only post-graduate teaching opportunity available.

In this connection, it seems to me that no intern should be accepted upon the staff of an institution unless he is a potential candidate for appointment to a position on the attending staff after he graduates. If he is not the type of man who would be acceptable for an appointment to a junior position on the attending staff, he should not be permitted to graduate from the hospital.

I do not intend to imply, however, that only men who are to practice in the immediate locality of the hospital are to be given positions on the house staff. There are, of course, exceptional cases of young men who intend to practice in small cities or who have not yet made up their minds as to where they intend to practice. As a general rule, hospitals should not only select men for internship who would be acceptable for appointment to the attending staff, but should also make an effort to follow up the scientific and clinical work of the men who gained their groundwork in medicine at that particular institution.

I believe the competitive system of examinations for internship prevailing in many institutions is inadequate. Aside from the fact that examinations are of doubtful value in determining the general fitness of the candidate, there is something incongruous in the system of choosing interns on the basis of a written examination usually prepared by the attending staff in the hospital and given to a group of young men coming from colleges that have entirely different methods of approach in the teaching of medicine. Young men from different institutions have often failed on particular questions, not because of their inability or lack of understanding, but because the

teaching methods did not prepare them for answering the type of question in the manner desired by the examiners.

It would be far more satisfactory if a proportionate number of men from different colleges were chosen on the basis of their rating in the school and also on the basis of a noncompetitive examination and a personal interview.

Whether or not an intern should receive compensation has long been a moot question. During the period of his internship an intern is expected to devote himself completely to the hospital. The hospital supplies him food and living accommodations and he pledges himself not to accept fees of any sort. Is this a fair arrangement? Is it not a form of discrimination against the young man of little means? Is it not an open encouragement for the young man to indulge in nefarious practices in order to gain the little money he requires for his clothes and other necessities?

It seems to me that the hospital should pay a medium allowance to interns. Many a capable young man has had to deny himself an internship or cut his internship short because of lack of finances. It would be unfortunate indeed if we could not in some way encourage those ambitious young men of small financial means seeking medical careers, who have the necessary qualities to make them distinguished clinicians and surgeons.

It would be advisable to arrange for a system of loans to interns after they leave the institution. This is an unusually wise investment and helps make the interns feel that the institution has a parental interest in their welfare and that they in turn are deeply obligated to render service to the institution. It is a truism by now that the hospital owes interns an education in return for the services they render. Therefore, it is necessary to have as members of the attending staff men with talent and ability as teachers, men endowed with a generous interest in the progress of the younger physicians, men whose work is of such caliber as to inspire and fortify the hopeful young intern. This is an even more vital factor in the hospital than the excellent equipment that every institution should have.

Learning the Commercial Side of Medicine

During the impressionable days of his internship, the young man gains an idea of the vicissitudes to be encountered in general practice. He becomes familiar with the commercial side of medicine for the first time. It devolves upon the superintendent to protect the young intern from exposure to the temptations of the tawdry practitioner, to see that he comes in contact with the type of physician who does not allow himself to be tainted by the commercial side of medicine, who conducts himself in a dignified ethical manner, earning his living honorably and maintaining a keen interest in medical progress.

It is also the duty of the superintendent to take an active part in seeing that educational opportunities are made available for the young intern, to interview members of the attending staff in behalf of the interns, to arrange lectures and to create fellowships and scholarships. Let us not delude ourselves. For treating their private patients the physicians will receive substantial fees, though they are assisted by the house staff, while the interns, performing work that has a definite commercial value, get nothing. The least we can give them is an education.

Intern Should Assume Responsibility

It is important also to see that the intern is imbued with a sense of responsibility and that while he works under supervision, his work does not become merely a menial carrying out of orders. Even the junior intern should be entrusted with the care of the patient. He should be allowed to submit a line of treatment in a specific case to an older man who can with sympathy and understanding supervise and make suggestions.

I do not wish to give the impression that interns should be given *carte blanche* in the treatment of patients, or that our present rules, which make it necessary for the house physician to get in touch with an attending physician before any radical procedures are carried out, be abrogated, but I do feel that it is in the best interests, not only of the institution and the intern, but also of the future patients of the intern, that he be given an opportunity to do work for himself, to think out his own problems and to become accustomed to responsibility.

It is also the problem of the superintendent to work out some scheme by which the usual friction that occurs between a house physician or house surgeon and a resident physician is avoided. With the assistance of intelligent young men, the matter is simplified, but when there is a tendency to resent encroachment, it devolves upon the superintendent not merely to give peremptory orders, but to solve the problem tactfully, but firmly.

There is too much tendency to waste the intern's time. While the intern must take care of histories and make physical examinations, certain clerical work, such as charting, which is of no profit to him, should be done by the paid clerical and laboratory staff of the hospital. The intern should of course be asked to do laboratory work, but he should not be asked to perform clerical or routine laboratory work.

Every hospital has its own peculiar problems and every intern staff is unique. It is the duty of the superintendent to keep attuned to the changes that take place in the house staff from year to year. It is unfortunate that some superintendents become dogmatic in their attitude towards the interns, that they fail to distinguish that while a great deal can be left to the discretion of some, there are others who require rigorous supervision and discipline. The superintendent should therefore attempt to take account of the quality of his intern staff annually.

Alumni Organization Important

It is important that the hospital have a strong alumni organization made up of former house physicians and house surgeons. The superintendent can often exercise a great influence in the creation of a strong alumni.

It is important also to encourage the younger men to present their own ideas freely and without fear of criticism or hostility at the monthly staff conferences. It is the duty of an attending staff to stimulate criticism and suggestions and to take both with good grace.

The superintendent should never lose sight of his power of suspension over an intern staff. As younger men, adjusting themselves to the routine of the hospital and looking forward to the prospect of setting out for themselves, interns often err and for this they should be called to account. A superintendent who fails to maintain discipline and does not realize the value of suspension and its effect upon the staff is missing an important phase of his work.

The superintendent of an institution can be of great help to these younger men. His advice, which can be given in a detached, impersonal way, is often invaluable. He can give important information concerning the type of work for which the young men are suited. He also has a record of the opinions of the older physicians as to the interns' qualifications and aptitudes. He knows something of the personal life of the interns and is in a position to offer helpful suggestions and counsel and to help them, in some instances, tie up their work with that of an older physician who needs an assistant.

After all, most interns are high minded, intelligent young men, whose interest in medicine originated in a love for the profession and a fearlessness and disregard of its hazards and heartaches.

It behooves us as superintendents to remember the deep influence that we sometimes exercise over interns; to remember also that these interns are not clerks to physicians but that they are being trained for the future.

Why Accidents Within the Hospital Should Be Reported Promptly

The superintendent of the hospital should be in possession of the facts relative to every phase of the hospital's daily activity. It should not be necessary for him to secure a delayed report on a major or minor accident when, for some reason, inquiry is made concerning such an occurrence.

Frequently there appears to be a tendency on the part of nurses and physicians to conceal or at least to withhold from those in authority the facts concerning an occurrence that might have been prevented. A tendency, harmful in its effects, to cover up such happenings is too often seen. The fear that nurses and physicians sometimes display of being regarded as spies if mistakes in technique are reported is difficult to overcome.

Hospital accidents are of all grades and types. They range from the administration of medicine in improper doses, to such catastrophes as fires, the patients falling from heights, or even suicide. Major occurrences are normally brought to the superintendent's attention promptly, but there is a great variety of minor mishaps and mistakes which, to the patient and his relatives, appear as major. When complaints concerning such occurrences are brought to the superintendent, it should only be necessary for him to turn to a file and produce firsthand information as to the happening.

It is customary for a routine accident and injury sheet to be a part of the official system of forms employed by the institution. This sheet sets forth the exact time at which a supervisory nurse discovered contusions, abrasions, lacerations or other injuries to the patient and explains in detail how they took place. It also contains a space for a description by the physician of the injuries present, with his version of how they were caused. Such a sheet should be immediately forwarded to the superintendent of the hospital, preferably through the office of the superintendent of nurses, although in some hospitals such forms are executed in triplicate, one form proceeding to the superintendent of the hospital, one to the superintendent of nurses and the third being placed on the patient's chart. Upon the receipt of such a notification, which in serious cases may have been preceded by a telephone call, the executive is able to proceed promptly with the investigation.

Any effort on the part of nurses, doctors or others to withhold information concerning relatively minor accidents, such as a patient's falling out of bed, the untoward effects of an overdose of drug, the appearance of a decubitus, or any other matter that is likely to bring adverse criticism to the hospital, should be emphatically discouraged.

Miniature Hospitals on Wheels Give First Aid Instruction

Three miniature hospitals on wheels have been fitted up to supply first aid instruction among employees of the Canadian National Railway Company, says the *Journal of the American Medical Association*. The hospitals are railway coaches that have been outfitted with the latest in emergency equipment and theaters for demonstrations. They are the result of plans established by a special railway council of the St. John's Ambulance Association.

How T.B. Sanatoriums Can Cooperate With General Hospitals*

By ARTHUR T. LAIRD, M.D.
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THE dissemination of knowledge regarding tuberculosis has resulted in considerable progress in the treatment of that disease. The newer methods of therapy require resources not formerly needed and the elaboration of diagnostic and therapeutic procedures in general hospitals has made it difficult for the average sanatorium to provide even the facilities that the patient has a right to expect for the treatment of common nontuberculous conditions.

Since surgical measures have been found of definite value in some forms of pulmonary tuberculosis, their availability for sanatorium patients is an essential factor in the successful conduct of the institution. Accordingly it seems necessary that the sanatorium either become practically a modern general hospital or be closely affiliated with one.

Supplementing Present Facilities

The American Medical Association,[1] the American Hospital Association[2] and the National Tuberculosis Association[3] have stated several times that they are in favor of supplementing the available provisions for tuberculous patients in sanatoriums with tuberculosis wards in general hospitals. Such wards would provide prompt isolation and suitable care for the tuberculous patients constantly appearing in any general hospital. These patients often require special surgical care that is not usually available in sanatoriums. Other patients are admitted with various diagnoses but eventually are found to be suffering from tuberculosis of the lungs. Such wards would also provide prompt care for patients with emergency cases of pulmonary tuberculosis who cannot be admitted to a sanatorium at once on account of limited capacity and the length of the waiting list. Such patients include those having sudden severe hemorrhages, those with rapidly developing acute symptoms and those who, on account of various emergencies, including the risk of continued infection to children, must be promptly removed from their homes.

Tuberculosis wards in general hospitals would care for moribund patients who have only a few days to live and who could receive no conceivable benefit by transfer to the more distant sanatorium. They would provide facilities for the observation and diagnosis of borderline cases. They would provide clinical experience for interns and for the medical staff in the modern treatment of tuberculosis. Nurses would gain experience in the care of tuberculous patients and would be trained to protect themselves and the families of patients from infection. Records, x-ray plates, pathologic specimens and other material for the study of tuberculosis problems and for research would be provided.

It is probable that many general hospitals now have tuberculosis divisions, and we know that certain sanatoriums are closely affiliated with university and other general hospitals. Such facilities, however, are not employed as widely as they should be and methods of cooperation are not well worked out. Here is a plan that has been in actual operation in Duluth during the past few years.

Duluth, a city of about 120,000 people, has two large general hospitals—St. Mary's, with a capacity of 290 patients and St. Luke's, with a capacity of 270 patients. The former is conducted by the Sisters of St. Benedict and the latter by St. Luke's Hospital Association which has a large popular membership. Nopeming Sanatorium, conducted by St. Louis County, Minn., is twelve miles distant, on a paved state highway.

Caring for Tuberculous Patients

Until 1925 no special provision was made for tuberculous patients in either hospital except when patients appeared who demanded emergency care. Now each hospital has a special division on a separate floor and some of the best rooms have been definitely set aside for such patients. Any member of the hospital medical staff can treat a tuberculous patient in this division but the ma-

*Read at a meeting of the Mississippi Valley Sanatorium Association, Grand Rapids, Mich.

[1] Jour. A. M. A., vol. 86, pp. 1665-1763, 1921.

[2] Transactions of The American Hospital Association, vol. 28, p. 106, 1926.

[3] Transactions, National Tuberculosis Association, vol. 12, p. 15, 1916; vol. 20, p. 14, 1924.

jority of the patients, including all free patients, are under the care of the Nopeming Sanatorium staff. The total capacity of the tuberculosis divisions, about equally divided between the two hospitals, is forty beds.

How Staff's Time Is Divided

The expenses of free patients are paid by the county through the sanatorium fund. Each hospital has in its out-patient department a chest clinic which is regularly attended by a member of the sanatorium medical staff and by a social worker from the sanatorium. One member of the sanatorium staff devotes half of his time to daily attendance upon the patients in the hospital who are in the Nopeming service. The specialists and surgeons on the hospital staff have given their services for the benefit of free patients in the tuberculosis divisions and have been greatly interested in the scientific study of these cases. The members of the sanatorium staff are also considered members of the hospital staff and are invited to attend the monthly staff meetings, the x-ray conferences and the Friday morning pathologic conferences. Permissions for autopsies have been obtained in terminal cases much more readily than could have been done at the sanatorium, and the material obtained at such autopsies and presented at the pathologic conferences has frequently proved of interest. Unusual cases treated in the tuberculosis division have been reported at staff conferences or at the meetings of the county medical society.

During 1928 the total number of patients admitted to the sanatorium services in the two hospitals was 280, including 141 men, 119 women and 20 children. The average length of a patient's stay in the hospital was eight weeks. One hundred and fourteen were on the waiting list for Nopeming Sanatorium and remained at the hospital until they could be admitted there. About one hundred were transferred to the hospital from the sanatorium for special care or surgical treatment. The remainder were admitted to the tuberculosis divisions in the hospitals for diagnosis or, not being eligible for admission to the sanatorium on account of residence or for other reasons, were admitted to the hospitals to be under the supervision of the sanatorium staff.

Work Is Varied

Many of the patients were referred to the sanatorium service directly by private physicians, though a large proportion were examined before admission in the out-patient departments of the hospitals or in the tuberculosis clinics held regularly in various parts of the county.

Thoracoplasty was performed on five of the patients transferred to the hospitals from Nopeming Sanatorium and phrenic neurectomy on fourteen. Over twenty abdominal operations were done, including a considerable number for cases of acute appendicitis. Other conditions requiring laparotomy were cholecystitis, tuberculous salpingitis, tuberculous peritonitis and pelvic inflammation. There were four nephrectomies for tuberculosis of the kidney. The orthopedists were consulted in seventeen cases, and casts were applied or operative procedures carried out. The otolaryngologists removed tonsils and treated middle ear and mastoid disease, sinus trouble and laryngeal conditions. The eye specialists treated tuberculosis and other diseases of the eye, tested eyesight and prescribed glasses for those who needed them.

Special Treatments Given

The gastro-enterologists made careful x-ray and chemical studies of digestive functions and directed the treatment of digestive disturbances. The specialist in mental and nervous diseases was consulted frequently as were the gynecologists and the internists. The roentgenologists at both hospitals and the pathologists were called on many times. Serial x-ray plates of the chest were taken and basal metabolism readings were made. Blood counts and bacteriologic tests were employed frequently. In a few cases, especially those of bronchiectasis, the bronchial trunks were filled with iodized oil. The hospital resources for treatment were also freely drawn upon. Facilities for performing operative measures and pneumothorax and for giving x-ray therapy, occupational therapy, heliotherapy, physical therapy and a diabetic régime with insulin, and orthopedic appliances and the oxygen tent were always available. The sanatorium would have provided only a few of these facilities.

This form of cooperation between the three institutions has been practiced for nearly four years. It has been of immeasurable benefit to the sanatorium in various ways. The community's number of beds for tuberculous patients has been increased. Emergency cases can be promptly cared for. Needed special advice and treatment can be obtained without delay. The members of the sanatorium medical staff are becoming much more interested in general medicine, and the local medical profession is becoming interested in tuberculosis. This cannot but improve the mutual respect and efficiency of all. The superintendents of both hospitals approve of the new departments and through their cooperation have made their development possible.

Practical Administrative Problems:

Suggestions on How to Compile a Standing Order Book

By JOSEPH C. DOANE, M.D.
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IT HAS been said that the commonplace happenings of to-day become the traditions of to-morrow and that contemporaneous politics is the fabric from which the history of future years is woven. These statements apply concretely to the methods by which professional and administrative standing orders are evolved. Indeed in a hospital in which a standing order book has been compiled, one observes that this volume is but a collection of the best practices and procedures as measured in the light of past experiences in that and other institutions. Professional standing orders, therefore, are but the composite of the best beliefs and practices of teachers, nurses, physicians and surgeons in a given hospital into which has been woven the experience of institutions and physicians the country over.

Little argument is needed to emphasize the necessity for the standardization of administrative and professional procedures. The institution that endeavors to conduct its work by elaborating rules and regulations as they are needed and then fails to set down such procedures for future use is headed toward confusion and misunderstanding.

Nursing Methods Begin in Classroom

All nursing methods must have their inception in the classroom. Many physicians are unable to understand why it is not feasible to change from day to day the methods by which routine hospital nursing is carried out. Moreover, the mere teaching of commonplace practices in the classroom is not sufficient, since continual drilling, as well as the later supervision of the practical exemplification of such instructions, is certainly necessary before supervisors can be certain that the proper technique will always be employed. For example, if each nurse were permitted to make an ether bed as she saw fit, nothing but confusion and inefficiency would follow. The carrying out of a proper dressing and operating room technique certainly cannot be the result of a word of mouth transmission of the correct methods to employ.

The same may be said about the medical or semimedical practices of the visiting or intern staffs. It is of the utmost practical importance, therefore, for each institution, large or small, to prepare for the guidance of the members of its present and future personnel a clearly stated set of rules defining the methods to be employed in performing the work of the hospital. Standing orders, in contradistinction to the administrative rules governing hospital work, usually consist of definite instructions relative to the activities of nurses or doctors directly concerned with the treatment of the patient.

Printed Orders Are Usually Lacking

In most small hospitals, and in many large ones, a properly printed collection of standing orders is usually conspicuous by its absence. Too much is left to the caprice of physicians or surgeons or to the promptings of the moment as to the technique of carrying out the day's medical or surgical work. It would be difficult, indeed, in some hospitals to secure a logical and concise answer to the question as to how gloves are sterilized, for example, or how patients are admitted or as to the manner in which bodies are prepared for the morgue. Unless such procedures are fully described and are made available to each incoming group of nurses and doctors, it is too much to expect that mistakes or even grave errors that endanger life will not follow.

As has been intimated, there are two general types of standing orders, administrative and professional. Administrative standing orders usually include rules regarding the admission and discharge of patients from a clerical standpoint; bookkeeping methods; the cleaning and inspection of hospital rooms and wards and the engineering and purchasing departments. They may more truthfully be classed as specific rules and regulations rather than as standing orders.

Professional standing orders apply particularly to the medical admission and discharge of patients; to the collecting and examining of laboratory specimens; to the technique of performing postmortem examinations; to temperature taking; to the administration of medicines as well as to the special methods to be employed in the

administration of various special medicaments and treatments. Standing orders relative to the establishment of a quarantine as well as those covering the surgical, eye, maternity, orthopedic and pediatric departments are also included in any collection of instructions that lays any claim to completeness. It will be seen that professional standing orders, therefore, represent routine regulations that affect all physicians and nurses and in a somewhat less degree every other type of person coming in contact with the sick.

Most of the foregoing statements will be accepted as basically true even by the average hospital which does not possess a complete standing order book. Some may ask as to the methods by which a standing order book may be prepared. There are those who will also express the belief that the danger which lurks in the preparation and enforcement of such instructions lies largely in the grooving of professional effort or in depriving it of its originality. In answer to the former query, it may be said that a collection of all existing professional rules with a deletion of unimportant or unworkable provisions represents the real nucleus of a future adequate standing order book. Bulletin No. 45 of the American Hospital Association, published in 1922, will be found useful as a framework by most hospitals around which effective local regulations can be constructed. This bulletin sets forth in ample detail certain orders that have been found useful in an outstanding institution in this country. A collection of standing order books from representative hospitals, with the adaptation of their provisions to fit local needs, will also be of great assistance to the superintendent who is beginning this work.

Many Routine Procedures

As to the deprivation of physicians of their originality, little in refutation need be said. Since so many necessary institutional professional procedures are definitely routine in nature and since there remains in addition to this group a great number of practices that are necessary to meet the individual needs of the patient, it does not appear that such an objection is at all valid. Medicines, for example, may vary greatly in dosage but the administration of mercury or of a Sippy diet as well as the best methods employed in the application of certain electrotherapeutic measures are rather routine the country over.

Special and general standing orders vary greatly with respect to the geography of the institution, its type, size and organization. Hence, each institution must prepare for itself those instructions that would only partly apply to other institutions even though they are similar in size and clientele. Since it is of prime importance that the work of the hospital be coordinated insofar as its several divisions are concerned, what will be said in this article will refer particularly to specific hospital locations rather than to definite hospital personnel groups.

The proper admission of patients from a professional standpoint is of great importance. Standing orders covering the work of nurses and doctors in the receiving department must be thoroughly worked out. It will be noted that in the following discussion regulations covering hours of duty, centralization of responsibility and other administrative matters have been properly omitted from the standing orders enumerated for this and for other departments.

Orders Governing Admission of Patients

Upon admission of the patient, the resident and ward physician must be immediately notified by telephone that a new patient has arrived, the nurse reporting at this time the temperature, the rate of pulse and respiration including as well a statement concerning the general condition of the patient. It is customary for the admission temperatures of children under twelve years of age to be taken by rectum. The initial and later weighing of patients is usually included in orders covering ward admission procedures.

Definite orders concerning the type of patients who are to be given admission tub baths must be set down. Often patients with temperatures below 96 and above 100 are given sponge baths. For premature infants and for those seriously ill or in collapse sponge baths are not prescribed. All other children are so bathed. All patients are kept in bed after admission until otherwise ordered. Nose and throat cultures on all children and vaginal smears on all female children are usual regulations of the receiving ward. The compilation by the admission intern of a proper history of all children too young to furnish facts concerning themselves and on all unconscious or delirious patients is usually required. A written permission for operation should be obtained for the performance of any major or minor operative procedures, such as the incision of boils, tracheotomies and for the administration of certain serums and vaccines and the performance of minor medical surgery, such as lumbar puncture, venipuncture and the subcutaneous, intravenous or intraperitoneal administration of fluids.

It is surprising to note that in many hospitals there is a total absence of regulations relative to such common procedures as the taking of temperatures. To be sure, in most nursing schools, de-

tailed instructions have been set down covering this act, since pupil nurses must be thoroughly instructed again and again in the proper method of taking and recording temperatures. Both resident and staff physicians, however, are usually totally ignorant of standing orders relative to the taking of temperatures. Temperatures are usually taken by mouth except in the case of young children, of delirious or unconscious patients and in certain other exceptional medical or surgical states.

In many institutions, rectal temperatures only are recognized as accurate. There is much to be said in favor of this belief. Usually all patients on admission are put on a three-hour temperature, pulse and respiration schedule. Often there is a three times a day schedule and less often it is a morning and afternoon practice to take temperatures. Temperatures are frequently routinely taken thirty minutes after a sponge or tub bath for the reduction of fever. Patients are usually not awakened from sleep for the taking of temperatures unless special orders to the contrary have been given.

In the administration of medicine, Q. I. D., Q. 4 H., Q. 3 H., Q. 2 H., B. I. D., T. I. D., A. C., P. C. are abbreviations, the meaning of which is known to all hospital persons A. C. and P. C. medicines should be given not longer than thirty minutes before or thirty minutes after food. Definite standing orders in regard to the admission of opiates are considered very necessary. P. R. N. orders should not be permitted. No standing orders should be allowed, each separate dose being written in the order book. The same may be said concerning the dispensing of alcohol, the requirement being that each dose must be covered by a separate order sheet prescription.

Excerpts From a Well Planned Order Book

At times difficulty is experienced in the confliction of such standing orders as might be set down by the visiting physician or his assistant. It is usually considered that orders of officers of a higher rank are given preference over those of a lower one. Telephonic orders for medicine are usually prohibited in modern standing order books and the signature of the physician giving each order is rightfully required.

Perhaps the most important chapter in the standing order book is that concerning the preparation and collection of laboratory specimens. Frequently instructions relative to the examination of these specimens are also included. The following orders are extracts from the book of a large eastern hospital and while they are not wholly generally applicable they are inclusive enough to be of service to a great many hospitals in the field.

Instructions governing specimens sent to the laboratory of clinical pathology are recorded as follows:

Routine: The urine specimen is placed in the conical[1] urine tube provided for this purpose. The container should be firmly corked. The colorless fluid in the urine tube is 10 per cent formalin and is placed there as a preservative. Do not throw this away. A label must be placed on each tube containing the date and the patient's name and ward. The routine urine form is filled out properly, folded lengthwise and fastened around the top of the urine tube with a paper clip. "Special for Operation," "Stat," "Nurses Inf.," "Catheterized Specimen" should be written on the outside of the folded urine slip together with the word "Stat" in red ink when an immediate report is desired.

How Miscellaneous Requests Are Handled

Miscellaneous requests, for the presence of bile, blood, indican or for any other special study are to be written in red ink on the routine urine slip and the specimen sent in the usual manner.

Twenty-four-hour specimen: In collecting a twenty-four-hour specimen of urine, the patient is instructed to empty his bladder at a specified time, preferably at 7 a.m. This urine is discarded and all urine passed from that time until the bladder is emptied at 7 a.m. the next day is saved. The specimen should be collected in the one-half gallon bottles provided for this purpose and kept on ice whenever possible. If, instead of placing the urine specimen on ice, a preservative is utilized, formalin in the proportion of three to four drops to a pint of urine, a crystal of thymol, or enough toluol to cover the top of the fluid must be added. The one-half gallon bottle must be labeled with the patient's name, the date, the ward and the notation, "24-hour Spec.," made. It should then be sent to the laboratory with a routine urine slip on which is written in red ink the special test desired.

Phenolsulphonphthalein test: First, place any second-hour specimens in separate eight-ounce bottles. Do not use the conical sedimentation tubes. Each bottle must be labeled with the patient's name, the ward, the date and the hour of collection. Seal the bottles with adhesive paper or corks. Do not use cotton plugs as some of the dye will be absorbed and so lost. Send the specimen to the laboratory with the regular routine urine slip marked for P. S. P. (Phenolsulphonphthalein test.)

[1] Special cone shaped urine tubes are used in this hospital.

Mosenthal test: Instruct the patient to empty bladder immediately before breakfast (8 a.m.). Collect specimen of urine at 10 a.m., 12 noon, 2 p.m., 4 p.m., 6 p.m., 8 p.m. and finally at 8 o'clock the following morning. It is essential that the hour be exact and the bladder emptied each time. Each specimen is kept in a separate bottle labeled with the patient's name, the ward, the date and the hour of collection. At the end of the time all of the specimens are sent to the laboratory with a urine blank requesting examination for a Mosenthal test.

Specific Rules Concerning Various Tests

Sputum: Fill a clean, unsterile regulation sputum bottle not over half full with sputum.[1] Do not use cotton, adhesive tape or paper to cork container. Label the bottle, giving the patient's name, the ward and the date. Fill out a laboratory card but do not attach the card to the specimen bottle as leakage may occur and contamination of the card take place. All sputum specimens except those for bacterial culturing and typing must be sent to the laboratory of clinical pathology. Routine sputums for study for the presence of the tubercle organism must reach the laboratory before 9 a.m. Otherwise they will not be examined until the next day.

Blood requests: Blood counts are requested on the laboratory cards. Fill out the card with the patient's name, the ward and the date, the doctor's name, the laboratory department and underline the tests wanted. If a full count is desired place a check opposite the "blood count" line and either underline the tests wanted or write "complete" after it, or cross out the "conditions," that is, (R. B. C. if Hb. under 70.) (Diff. if leucocytes not between 7 and 10,000); otherwise, the red blood cell and differential counts will be omitted in appropriate cases.

Special blood requests from clinical pathology must be inserted under "miscellaneous" (fragility, reticulocytes, platelets, etc.). All "Stat" requests must be marked "Stat" in red ink and the card sent immediately to the laboratory, even though a telephone request precedes it.

Direct smears, gonorrhea smears: Make a thin smear from the eyes, urethra or cervix on one end of a micro slide. Stick a slide label on the end of the slide farthest from the smear. Write the location from which the smear was taken, the date, the patient's name and his ward on the label. Allow the slide to dry in air. Do not use heat. Put the smear side of the slides together when they are dry. Wrap the slide in paper, write the patient's name on it and attach it with a clip to a laboratory card properly filled out. Fold the card around the slide so that the patient's name is on the outside. Do not use adhesive paper or tape for wrapping.

The following instructions govern specimens sent to the laboratory of biochemistry:

Blood chemistry specimens should be sent to the laboratory immediately after they are collected; otherwise, there will be a loss of sugar due to glycolysis. If it is necessary to keep such specimens in the wards overnight, they should be placed immediately on ice. All regular routine specimens should reach the laboratory before 2 p.m. in order that blood sugar determinations may be completed.

All blood specimens are collected in the regular oxalated tubes (including Van den Bergh's) with the exception of specimens for blood calcium which requires a full Wassermann tube of clotted blood.

At least 5 c.c. of blood is required for a routine blood chemistry.

Dry needles and syringes should be used in taking specimens for calcium and Van den Bergh tests so as to avoid hemolysis.

All urines sent to the chemistry laboratory should be accompanied by the regular laboratory cards and not by the routine urine slips.

Regular basal metabolic rate determinations are done Wednesday and Saturday mornings.

Preparation for basal metabolic rate: Patient's height and weight are accurately determined and a slip with these data accompanies the chart, irrespective of whether it may be the first or a succeeding determination. The patient remains in bed the morning of the determination, and is brought to the station on a stretcher, having been kept as quiet as possible. The patient receives no breakfast on the morning of the test. The patient is accompanied by a nurse.

Specimens for the Bacteriology Laboratory

Instructions governing specimens sent to laboratory of bacteriology follow:

Blood for Wassermann or agglutination tests should be collected in clean sterile tubes, in 5 to 10 c. c. amounts.

Spinal fluids for Wassermann and colloidal gold should be collected in the same manner and in 5 to 10 c.c. amounts. One specimen serves for both Wassermann and colloidal gold tests.

Materials for culture (except cultures for diphtheria) must be collected under aseptic conditions and placed in sterile containers. These should be sent to the laboratory as soon as possible after collection.

[1] Sputum, for the detection of tubercle bacilli need not be collected in a sterile container.

For preparation of vaccines material for culture is sent to the laboratory in the same manner, accompanied with a request for vaccine preparation.

Vincent's, thrush, diphtheria and other direct smears: Make the smear in the usual manner from a specific location, label the slide and wrap it as for gonococcal smears.

Skin parasites: When selecting material for ringworm, favus, etc., take scrapings and place them between glass slides in a dry condition. Wrap and send to the laboratory, the same as for direct smears. The hairs for scalp ringworm should be carefully selected, and the short stumpy hairs taken.

Gastric analysis, fractional gastric: Place the residue and each fraction in separate test tubes. Label each with the date, the patient's name and the ward and the specific fraction number or the time of withdrawal. Plug each tube with a cotton stopper. Place the bottom of the test tubes in a paper so folded as to form a basket arrangement in which the paper is brought up around the sides of the tubes and fastened firmly with rubber bands. This prevents test tubes from dropping on the floor during their handling. Properly fill out one laboratory card and fasten with a clip around the tubes, face outward. Send the tubes to the laboratory immediately or keep them on ice until it is possible to send them.

Feces: Put the specimen in a sputum jar and seal with adhesive paper. Do not use adhesive tape, cork or cotton plug. Label the jar properly and send with the card to the laboratory. Do not wrap the card around the jar. If a search for amoebae is desired, place the jar of feces in a pan of warm water and send to the laboratory immediately. If it is not possible to send the specimen immediately, omit the pan of warm water.

Cultures and Their Care

Spinal fluids, for cell count and globulin: Place 2-3 c.c. of spinal fluid in a Wassermann tube, label with the patient's name, the ward and the date. Wrap the laboratory card, face outward, around the tube and fasten top and bottom with a paper clip.

Exudates: Exudates for a complete routine examination must be placed in eight-ounce bottles; if only cell count and prevailing organism are desired, a test tube may be used. Plug the bottle or test tube with cotton and label with the date, the patient's name and the ward. The card must be attached to the specimen in the regular manner.

Blood cultures are made at the bedside by the laboratory interns, the request card alone being sent to the laboratory.

Nose and throat cultures for diphtheria are made in the ward by the clinical interns directly on coagulated serum medium furnished for this purpose. The culture with request card attached is then forwarded to the laboratory for incubation.

Where small amounts only of material for culture are available, this may be collected on a sterile cotton swab, which is then placed in a sterile tube for immediate transmission to the laboratory. Such material will dry quickly, thus becoming unfit for culture.

Other Methods That Are Carefully Recorded

Instructions governing specimens that are sent to the department of histology are also presented:

All specimens should be wrapped in gauze, moistened with normal salt solution and finally wrapped in wax paper. Delivery should be prompt.

Biopsies from radiological conferences are to be immediately immersed in a 4 per cent neutral formalin solution, in order to facilitate their fixation. Containers with this solution are furnished by the department of histology. The date and hour of the excision of tissue and a concise clinical abstract on the special forms supplied should accompany each specimen.

The method of requesting photographs is as follows:

Photographs of patients in the wards are requested on special forms, which are sent to the laboratory. Telephone appointments are then arranged for the taking of these photographs, either in the wards or in the studio.

Arrangements for preparing photomicrographs are usually made through personal interviews with the photographer, at which time a special request form may be filled out.

THE MODERN HOSPITAL desires to commend highly the splendid contribution Doctor Henderson's committee has made to hospital practice and to the protection of hospital patients. Its recommendation that a conference of the manufacturers of anesthetic apparatus with representatives of the American Medical Association be called seems well timed. It is probable that all manufacturers would exhibit an interested and constructive attitude toward improving their machines from the standpoint of safety. Ethylene has many virtues and every hospital administrator, whether this drug is being used as an anesthetic in his institution or not, should be informed concerning its advantages and the most effective methods of making its use more safe for patients.

Editorials

The American Hospital Association Goes South

THE judgment of the governing body of the American Hospital Association in deciding on New Orleans as the 1930 convention city is to be commended, at least from the standpoint of the beneficial effect this decision will have on the hospital work of the South.

After all, the maintenance or re-creation of local public interest in the cause and work of the hospital, which the gathering of institutional workers in any geographical section brings about, is one of the beneficial by-products of the annual convocation of hospital executives.

But unless there is to be found at these meetings from year to year an increasing number of trustees, the good that such a convention will accomplish is circumscribed. The hope of soon reaching the institutional millennium, as far as good and effective administrative practices are concerned, does not lie entirely along the line of the better education of hospital executives. A crying need for such an improvement in the professional preparation of administrators certainly exists. In a still greater degree, however, does the average trustee require information as to the basic principles of conducting a hospital. Unfairness and provincialism on the part of one or more directors as often bring to naught the efforts of a well trained executive as does the executive's lack of tact and skill. To learn of the magnitude and complicated nature of hospital administration, to meet some of the leaders in the field, to observe their own executive in his active effort to prepare himself for better service must prove of ultimate benefit to trustees.

That the American Hospital Association recognizes this fact is not to be doubted, but unless a stronger sectional organization of trustees is brought about, active and useful interest in hospital work generally will continue to lag as it has in the past.

Extravagant Economies

MANY boisterous critics of the "exorbitant" cost of hospital care are to-day centering attacks on the supposed extravagance of hospitals in bettering the physical standards of the new or rehabilitated building. The so-called "elaborate" exteriors, lobbies, reception rooms in vogue to-day are seen as unjustifiable expenditures, prompted by pride, which increase overhead and must in turn be accepted as an added burden on the patient. The critical process seems to be a logical adding of 2 and 2—if the building costs more, the patient must be charged more.

The stress of economy ever points to the sacrifice of estheticism on the score of utility. It is always easy to be practical by being frugal. Yet it is safe to say that beauty is not without its utility in spite of the fact that the critic is likely to declare and prove the contrary.

The hospital field has fought a long and hard battle to lift itself from out the rut of cold, formal institutions. It has banned its white walls and iron beds. It has said "Good-bye to all that." If it has been vain, its vanity has been well founded. It has realized once and for all that happiness is no luxury, and that the amenities of life are simple things that find satisfaction and joy in good architecture, color, soft flooring, cretonne draperies and comfortable chairs.

The answer to hospital costs is not to be found in the surrender of the esthetic. If the hospital is an institution to humanity, it is an institution that considers the emotional as well as the physical—both are human. The psychology of sickness may not be as definite a thing to cope with as a broken leg. But it is just as important for the hospital to keep the patient cheerful in mind as it is to anneal his broken bones. And the "luxury" of surroundings is as essential to convalescence as the surgical treatment, the splint, the bandage—all the strictly useful things.

The American Medical Association and the Hospitals

UNDER the leadership of its president, Dr. William Gerry Morgan, the American Medical Association has entered vigorously upon a program of hospital reform. To its previous classification of hospitals according to their suitability or unsuitability for the training of interns the association proposes to add a new system of grading in which the ethical standing of hospitals and their consequent right to medical cooperation will be determined by their treatment of the professional and economic rights of members of the medical staff.

The president of the association, in a series of proposals presented and promulgated on June 24, laid down a number of principles which, in his opinion, should govern the relations between hospital and staff. These principles are quoted and discussed elsewhere in this issue by Dr. S. S. Goldwater, who is a Fellow of the American

Medical Association and who at one time held the office of president of the American Hospital Association.

The demand of the American Medical Association for recognition of the just claims of physicians will, we believe, be sympathetically received by intelligent trustees who look upon staff members not as mere employees but as partners in philanthropy. But even the most sympathetic friends of the profession will be inclined to ask, as Doctor Goldwater does, whether the association is not recklessly flourishing an ominously big stick when it supplements its definition of professional rights by advising members of the association to "refuse to support by the contribution of their services or by the reference of their patients" any institution violating the principles which the proposals lay down.

The house of delegates has authorized the creation of a bureau of economics to study questions bearing on the economics of medicine. This is a wise and proper step. Hitherto the study of these questions has been left largely to social workers and statisticians who in many cases have assumed the position not of judge, but of patient's advocate. When the bureau of economics gets around to the question of determining how much of the actual and prospective earnings of a hospital belongs to the medical staff, it will have to deal with the puzzling complexities of hospital accounting. Anterior to questions of hospital accounting, however, are far more fundamental questions of social theory, civic policy and professional ethics, and not until there is a general agreement about the nature of the triple partnership between the physician, the hospital and the community, will it be possible to determine intelligently where the income of a hospital should come from and how, in fairness to everybody concerned, it should be distributed.

Miss Loveridge Retires

EMILY LOVERIDGE has retired. This simple statement means a great deal to all hospital people in the United States and Canada who have known and admired the work that she has been doing for more than fifty years.

Miss Loveridge has been the superintendent of the Good Samaritan Hospital, Portland, Ore., for more than forty years and graduated from Bellevue Hospital training school for nurses over fifty years ago. She has given unstintingly of her abilities in her chosen profession and because of her many capabilities has placed the Good Samaritan Hospital among the first in the country. She has been a familiar figure at hospital conventions for many years and it is hoped that while she has retired to a long deserved rest, away from the daily duties of a superintendent, she will not relinquish her interest in hospital matters and that she will ever be ready to help the younger superintendents reach their places in the sun. The good wishes of all hospital administrators and the entire nursing profession go to Miss Loveridge.

Simplifying Surgical Dressings

THE manufacture and sterilization of surgical dressings are difficult time consuming procedures. Moreover, even the cost of the materials necessary for the preparation of the great variety of articles employed by the surgeon in a major operation is certainly considerable. The conspicuous lack of uniformity in size, quality of gauze and method of manufacture of surgical dressings that has been observed throughout the hospital field suggests both inefficiency and waste.

In proposing the further standardization of surgical dressings the American College of Surgeons has called attention to the need for simplification insofar as the size and texture of sponges, pads and drains are concerned and has included in its report some vital suggestions for a refinement of technique in matters directly or indirectly bearing on this subject. While it is probable that the nomenclature suggested for the various sizes and shapes of gauze articles employed will not be immediately adopted by most hospitals, yet there is no reason why standard sponges and pads should not eventually conform to a uniform size and name.

The modern trend toward the purchase by the hospital of ready-to-use gauze articles is significant and easily understood. With the advent of newer ideas in nursing education has come the conviction that gauze sponges prepared by probationers are expensive and that the practice is antiquated and is unjust to the nurse. Certainly if the cost of labor must be considered the hospital cannot compete in price with commercial houses in the manufacture of these goods. There are, no doubt, surgeons who will wrathfully resent any attempt to increase or decrease by one hair's breadth the dimensions of their favorite sponges. The majority of operators, however, will no doubt view with complacence any reasonable attempt at economy and efficiency along this line. Certainly if any general acceptance by hospitals of the nomenclature and method of preparation of surgical dressings can be consummated,

manufacturers will be able to prepare these articles in quantities and at a price that will not only simplify one of the hospitals' most tedious tasks but will also save money for each institution participating.

Let not executives pass by too lightly the practical possibilities of the simplification of surgical dressings. THE MODERN HOSPITAL views this report as one that presents in an unusual degree opportunities for increasing the efficiency and economy of the conduct of many hospitals in the field.

What Can We Say?

AND now comes the question, should a hospital superintendent be allowed to speak his mind in public or must his utterances be censored by the board of trustees of the institution he serves?

This subject ought to be food for discussion for some time to come. Recently a superintendent of a hospital made a public speech in which he said that contributions were the life of the hospital and that the board of trustees should set an example to the public by contributing liberally. When this portion of his speech appeared in the newspapers he was called upon to resign, which he forthwith did.

From a distance it looks a little as if the board had been remiss in its duties of contributing toward the support of the institution and that the superintendent had uttered a truth which was distasteful to its members. No one likes to have his shortcomings brought to the attention of the public, but certainly the cure is not instant dismissal, particularly if the superintendent has done an excellent piece of work as administrator for more than six years. A little more liberality on the part of the offending members would have forestalled the remarks. Broad-minded men would have acknowledged the fault and hastened to correct it.

However, the question remains, can a superintendent feel free to give speech to his thoughts or must he constantly be constrained lest he find himself out of work? Once before this question arose in connection with a remark that was made at a meeting of the American Hospital Association. A superintendent mentioned the idiosyncrasies of her hospital board only to find upon her return home a request for her immediate resignation.

Such treatment of professional men and women smacks just a little of oppression and while it certainly is not advisable to wash too much dirty linen in public or constantly to complain of one's treatment at the hands of an arbitrary board of trustees, the hospital administrator should be able freely and frankly—if necessary—to discuss hospital problems. Unless this freedom is given, the superintendent's hands would soon be tied and he would find himself the worst kind of a robot, a veritable "yes" man, and as a result of this step the entire field of hospitalization would greatly suffer.

Now, the questions to decide are, first, was this particular remark of the superintendent proper, second, is dismissal justified no matter what the remark, provided of course, it is made in good faith, is within the bounds of truth and is designed to advance the interests of the hospital?

Talking It Over

THIS month we ought to celebrate, on the twenty-ninth, the birthday of Oliver Wendell Holmes, the good gray physician, poet and philosopher, a wise man whose portrait should hang in every lying-in hospital because he it was who brought to the attention of the profession the frightful mortality rate from puerperal fever. Nowadays we are too busy with mystery stories and tales of sloppy sentimentality to read the genial "Autocrat." Every therapeutist will gain much from his essay, "Homeopathy and Kindred Delusions," and the prospective traveler will profit by reading "One Hundred Days in Europe" which, by the way, was the best advertisement for the safety razor ever written.

* * *

ALSO while we are reminiscing, we might recall that the first practical typewriter was patented on the twenty-sixth of August in 1843 and that petroleum was discovered on the twenty-eighth in 1859. These two discoveries have greatly changed the thought and action of man, great inventions have followed in their train and they have done much for the liberation of human minds and bodies.

* * *

JUST one hundred and one years ago on the eighth of this month the first locomotive was run in the United States. It probably could develop the delirious speed of fifteen miles an hour, but it brought men into closer communication, changed the economic map and made life easier, safer and happier.

* * *

HERBERT HOOVER will be 56 years old on the tenth of this month. Congratulations are offered to him and to the Nation. He is an engineer by profession and an American by birth and we who labor for man's welfare claim him for our own. The bigness of his mind, soul and heart have made him the world's foremost citizen—a citizenship that transcends narrow nationality. He is making the world healthier and better. May he long be spared to humanity.

* * *

THE Greeks had a lovely word, *deonta*, meaning "things that ought to be done." How about the *deonta* on your desk? Do they pile up and swamp you? Or do you do your daily *deonta* as the days come around?

Abstracts of Hospital Literature From Foreign Countries

A Department Conducted by E. M. BLUESTONE, M.D.
Director, Montefiore Hospital, New York City

SPECIAL HOSPITALS IN GERMANY

Handbucherei für das gesamte Krankenhauswesen, Verlag von Julius Springer, Berlin, 1930[1]

THE purpose of the seven handbooks on hospital administration, edited by Prof. Adolf Gottstein and published by Julius Springer of Berlin is dual. They are intended to serve both the administrator and the physician.

The volumes are not planned to deal with the theoretical problems of the future, but to furnish the profession with the facts for direct practical work. They are a source of information to the hospital organizer, the architect and the technician who must be acquainted with the needs of the physician. On the other hand, the physician can acquire through these books a knowledge of the indispensable equipment and the principles of hospital economy. Both administrator and physician, being the representatives of the ideals on which hospital work is based, should also be able to orient themselves as to the legal foundations of hospital organization. The manuals fulfill these demands excellently. The very nature of the books does not permit a detailed review. There are so many technical items that the material must be studied directly from the manuals. The points here emphasized have been chosen at random.

Specialized Institutions Considered

The second volume of the "Manuals of Hospital Administration" deals with specialized institutions ("Fachkrankenhauser"). Prof. Adolf Gottstein, the editor, considers under this title those institutions which had to be separated from the general hospitals and which made special demands in construction and administration. This development, which began during the last decade, has not yet been completed for all the specialized institutions. This book gives not only an account of the present standing, but also the basis for the evolution of modern hospital work. The following types of specialized hospitals are exhaustively discussed: the institution for the treatment of mental diseases; the home for the crippled; the children's hospital; the hospital for the tuberculous; the maternity hospital; the out-patient department.

Dr. K. Wickel, Haina, describes the institution for the treatment of mental disease. In the first chapter on "general topics" the author dismisses the term "insane asylum" (Irrenanstalt.) The principle of curing and caring for psychiatric cases demands a more appropriate designation.

Beds for Mentally Ill Are Needed

At present for each million inhabitants there is need for 2,500 hospital beds. The number of mentally ill has not increased, but in Germany more mentally ill are in need of hospital treatment and accommodation. The reasons for this are general economic distress, lack of dwellings and a decrease of distrust for psychiatric institutions. An institution for mental diseases should be able to accommodate from 1,200 to 1,500 sick persons and still more in thickly settled communities. Each institution should be easily reached from the region supplying its patients. The administrative officers and the employees should have the opportunity of sending their children to school in the city.

The second chapter deals with construction. The institution requires tillable land. In an institution in which there are 1,500 patients, 375 individuals could be used as farm hands. In order to meet such a requirement, 1,500 acres would be needed. The administration building, the kitchen department, the section for food storage, the laundry, the workshops with their divisions for quiet and noisy occupations, the engine room and the types of heating and water supply, are thoroughly analyzed. The hospital should be built on the pavilion system. Pavilions for both male and female patients have to be planned in accordance with the type of patient to be housed—whether he is socially tolerable, or whether he is disabled or ambulant.

The departments for psychiatry and occupational therapy are particularly stressed. The care of the sick and the buildings for carriers (tubercle bacilli) are discussed by the author in

[1]Reviewed by Nicholas Michelson, M.D., New York City.

special chapters. A chapter is devoted to the nonconfined mental cases (offene Fürsorge). The final chapter is a treatise on the problems of medical and nursing care. The executive of the hospital must be a psychiatrist. An institution providing for 1,500 patients must have a staff of twelve doctors, including the medical director. The turnover of inmates, however, determines the proper ratio and not the absolute number of beds. The number of attendants depends on the same factor.

The institution must have scientific aims and must be conducted scientifically. A large institution as a rule is more efficient and more profitable than a small one.

The construction and the household aspects of the homes for the crippled constitute the second theme of the volume. Konrad Biesalski and Hellmut Eckhardt, Berlin, have provided the text with seventeen illustrations of the outer and inner architecture. The distribution of the homes for the crippled in Germany are shown and the pictures demonstrate a model equipment. According to the Prussian law, the home for the crippled is an institution which has to function as a hospital, as a school and as a medium for vocational rehabilitation of the patient. Germany has about 19,000 cripples. The vocational course covers four years. The time is set at this period for the learning of a remunerative trade. The authors note that rickets is on the decrease—from 23.1 per cent in 1920 to 13.3 per cent in 1926. The incidence of tuberculosis of the joints and bones seems to be unchanged. The erection of new homes for the crippled is not urgent under these conditions. One home for crippled is provided for every two and one-half million persons. The home maintains a bed capacity of 200.

The authors emphasize that playing grounds and ample space for sport should be an important part of the provisions of this institution for its patients.

The Provisions Made for Children

W. Gottstein, Charlottenburg, describes the hospitals for children. He examines the possibilities of hospital care and analyzes the different methods of building. The sections of the first chapter bear the following headings: (1) children in the wards of adults; (2) rooms for children on divisions planned primarily for adults; (3) separate hospitals for children; (4) the children's section in the general hospital; (5) the children's hospital and social welfare.

The second chapter states questions that every hospital organizer has to answer for himself before undertaking the construction of any institution; site; tall buildings (Hochhaüser); "Corridor system"; "Barrack system."

A third chapter correlates construction and equipment with prevention of disease. The important methods of this vital task that challenges our generation are conscientiously approached by the author. An appendix contains directions for the organization of new children's hospitals, which were outlined by the advisory committee of public hopsitals. There are added also directions for the construction of special wards to meet the needs of infectious diseases within the children's hospitals. An interesting bibliography permits the reader to obtain insight into the rich material used by the author in addition to his personal experiences.

How Tuberculosis Is Combated

In writing of hospitals for the tuberculous, H. Ulrici, Sommerfeld, formulates the aim of these hospitals as follows: to treat all forms and stages of tuberculosis; to combat tuberculosis as a source of infection.

In organizing and conducting such institutions it is profitable to have a capacity of from 250 to 350 beds. Ulrici's work contains spendid plans of known institutions and a project for an ideal hospital for the tuberculous. It would be an injustice to the author and to his publication if one were only to cite the high points in the form of an abstract. However, we shall quote one statement which is based on Ulrici's personal experience and which not only the professional man, but the layman will confirm. Reference is made to the selection of cases at a hospital for the tuberculous. "The advanced stages of the institution's patients should constitute a limited percentage only. Otherwise the hospital may impress one as a death house. The maximum of very sick tuberculous inmates who can be tolerated psychologically, so to speak, is one-third."

The bibliography of the concise and not unduly voluminous work gives credit to the most essential literary contributions in this field.

Lying-in hospitals are discussed by Sigfrid Hammerschlag, Berlin. The first chapter gives the historic development of such hospitals. It is exceedingly fascinating to read how the human race learned to provide maternity care. It becomes evident that we emerged from barbarism only very recently. The second chapter tackles the problems of our own time. The author gives an account of the Woman's Hospital of the University in Munich and in Leipzig and of the Brandenburgische Landesfrauenklinik in Berlin —Neukölln.

In 1927 about 89 per cent of the confinements

took place at home. These figures pertain to Germany as a whole. In large cities the statistics show different results. There about 50 per cent of the births took place in institutions. These data correspond to the findings in New York City where 60 per cent of the births take place in institutions.

The German statistics dealing with the maternity problems reveal the following significant data: total number of births in 1923, 1,340,154; births in hospitals, 80,665; total number of births in 1927, 1,200,029; births in hospitals, 128,861. There is a decline of births but the deliveries in institutions show a marked increase.

The bibliography presents one feature of special interest. Not only are works of recent date enumerated, but also some that date back a hundred years ago.

The dispensary (Ambulatorien und Poliklinikken), discussed by W. Moritz, Freiburg, distinguishes a group of dispensaries which are directly connected with hospitals or which cooperate with hospitals. It is not within the scope of his work to characterize those dispensaries that exist without an affiliation. The American student of the science of hospital administration will at once perceive that dispensary management is more complicated in Germany than in those countries whose economic status is more favorable. There is a constant increase of persons who are assigned to the "Krankenkasse." This is due to the poverty of the population. These conditions do not exist for us, and an analogy of the systems is uncalled for.

The author stresses the rôle of the dispensaries during epidemics and their potentialities for the purpose of preventive medicine.

Special Departments Are Described

The third volume of the handbooks is entitled "Special Departments in Hospitals" (Sondereinrichtungen im Krankenhaus). In the first part of the book, which contains altogether seven contributions, those sections are described that serve as central departments in modern hospitals such as (1) the surgical, (2) the radiological, (3) the bacteriological, (4) the pathological and (5) the pharmacy.

The second part deals in detail with institutions that relieve the general hospital of patients who could be cared for with simpler diagnostic and therapeutic equipment. Such institutions are "Leichtkrankenhäuser." There is no corresponding term in English as yet. They are the hospitals for the slightly sick, the hospitals for chronic diseases (Siechenhäuser) and the homes for the aged. Two interesting chapters discuss the medical library and the patients' library. The chapters on home treatment (Hauspflege) and medical social service form an epilogue. These chapters point out that organized social service can do much to unburden overstrained medical institutions.

Prof. Heinrich Braun, Uberlingen, the first of the nine authors included in this book, writes on the surgical division (Operationsanlagen). The problems he has undertaken to elucidate are: to teach the physician who is in charge concerning the suggestions he is called upon to make to the architect (the latter is interested only in fixed equipment which is built in); to show how surgical departments of any size may be organized with comparatively simple means. An increase in the surgical service in a hospital does not require the enlargement of the operating rooms, but an increase in their number. The principle is to assign as little of the available room as possible to the operating rooms and as much as possible to the adjacent preparatory rooms.

A Model Surgical Department

The surgical department of a small model hospital is described in detail in five sections: size and arrangement of the rooms; technical equipment; lighting system; other furnishings; sanitation. Illustrations supplement the text. The author considers certain hospitals where 3,000 operations a year are performed and thinks they are impractical. He argues that the personnel is overburdened, the chief of service can neither take active part in the major number of the operations nor supervise them sufficiently. It would be beneficial for the patient and the medical man as well if such huge surgical departments could be subdivided into two smaller units. Each chief of service should not, in his opinion, run more than 1,500 operations in his entire division during the year.

The plan of an operating room for teaching institutions is made vivid by means of a diagram. A bibliography is also appended to this valuable work, the merits of which are its numerous practical hints.

Prof. H. R. Schinz, Zurich, describes the radiological institution. He investigates the position of medical radiology from the scientific and practical point of view and defines its mission in the advancement of medicine.

The first chapter contains directions for architectural effects, construction and equipment. The economics of radiological management are analyzed in detail. The second chapter is equally instructive on account of its presentation of material derived from existing radiological institu-

tions. The so-called spacing problems (Raumprogramme) and the cost are not only outlined from an abstract, theoretical point of view, but they are also correlated with the experience gained from model institutions. The management of the radiological department in small public hospitals, in small private sanatoriums, and in small private hospitals is compared with the service in large public hospitals. The radiological clinic is characterized under the heading "The Central Radiological Department in a University." Its activities are threefold: treatment of patients; teaching; research. The campaign against cancer is linked with the creation of radiotherapy clinics.

Professor Schinz draws an analogy between the central radiographic institute and a radiographic unit in the special department of a hospital as, for example, in the medical or surgical division. It is essential to appoint a skilled radiologist (Vollröntgenologe) who, in addition to the required orientation in the technical field of radiology, must have a specialist's knowledge of his own domain. The specialized section must work on the same principles as the central radiologic institution. This means more cost but better results, as far as teaching and research are concerned.

Twenty illustrations accompany the text. This work has a wealth of administrative points worthy of utilization. The bibliography quotes German, Scandinavian, American and French literature.

Prof. K. W. Klauberg, Berlin, presents the institution for bacteriology and serology. The systematic exposition of the topic, with a splendid description of the rooms to be allotted, of the technique of conducting the departments, and of the personnel, cannot be abstracted in this brief review.

Pathologic Work Is Discussed

Prof. Herman Schridde, Dortmund, discusses the institute of pathology. He concentrates the essentials in sixteen pages. Ten illustrations are added to the text. Professor Schridde's program in reference to provisions for autopsies has more importance for us in America than for Germany, since postmortem examinations are relatively few in America, due in large part to the lack of a scientific tradition in this respect. "Each hospital, even the smallest one, and each cemetery must nowadays be equipped with an adequate room for the purpose of inquiring into the cause of death. Each large industrial company, the conduct of which causes fatal accidents in more or less numbers, should also be provided with a postmortem room. This requirement goes hand in hand with that of first aid stations in such districts."

The medical library is described by Dr. Gottfried Kricker of Köln. It represents the heart of the scientific organism of the hospital. It sends out new streams of life into the laboratories and into the field of practical clinical endeavor.

Site, space, equipment, organization and management are exhaustively investigated and their elements presented to the reader in a form that any intelligent layman can understand. The catalogue systems are demonstrated in detail. The sampling and grouping of books according to the systems cited may easily be put into practice by the use of Doctor Kricker's work, since it abounds with instructive examples. The author mentions among other things the Treadwell Library in Boston as a type for beauty and practicability.

Hospital Pharmacies Are Analyzed

An illuminating contribution is the section on hospital pharmacies by Hans Kaiser, Stuttgart. In keeping with the spirit of the age, he says, one should expect its conduct according to these principles: The pharmacy must be founded on a scientific basis; it must be laid out so as to enable future expansion; the business part must be handled systematically and all the apparatus must be of the best quality, that is to say, harmonious with the advance of technique. Doctor Kaiser traces the historical origin of hospital pharmacies. They were already functioning in a rudimentary form about the beginning of the fourth century under the auspices of the cloisters which, as is known, gave impetus to the development of hospitals.

The various phases of the management of a modern hospital pharmacy are analyzed by the author. They should function as apothecaries (Vollapotheken) to furnish sick persons outside of the hospital with drugs. They must be mere dispensing departments confined to their own hospital. There are in Germany three exceptions, which exist through tradition. These are the hospital pharmacies in Köln, Breslau and Danzig.

To Irmgard Linde, Berlin, has been assigned the problem of the library for hospital patients. A literary production read during active disease or later during convalescence has a different effect than one read while the person is well. The patient's reaction will be keener. In two hospitals at Hamburg it is customary to consult the physician before providing a patient with literature. His opinion as to possible beneficial or detrimental influences of certain types of literature is highly valued. It would be desirable to adopt this policy

more frequently. The librarian should have an approximate knowledge of the reader's education and his character. The patients' library must stimulate, entertain and educate the sick in order to exert therapeutic influences.

Franz Goldmann discusses "Leichtkrankenhäuser." The author makes the observation that married people are found at hospitals less freqently than single people of the same age group. They are in hospitals less often than widowed or divorced individuals. Evidently there is a connection between disease and social position; one need not presume that there is a biologic predilection for disease among the unmarried.

Caring for the Chronically Sick

All superfluous demands made on general hospitals should be eliminated; they must be utilized within the medical program set out for them. Means should be created to unburden them. Hospitals for individuals who are but slightly sick must be created on account of economical as well as medical considerations. Gottstein has described the intrinsic characteristics of this relatively new and not very sharply defined entity as "the hospital for those not severely ill." It is an institution that makes fewer demands on the builder than the average hospital. This type resembles the sanatorium, except that the specific curative factors of the surroundings are lacking. The homes for convalescents (Genesungsheim und Erholungsheim) are differentiated from the type under discussion by the more intense medical supervision in "the hospital for the slightly sick." In addition their chief aim is to take over from general hospitals certain groups of patients who do not need to stay there, thus acting as safety valves for the overburdened hospitals. These centers of relief ("relief" being used in the sense of "Entlastung") are now understood to occupy a legitimate position between the hospital, on the one hand, and the convalescent home on the other.

The next question one would ask is: What type of disease entitles the patient to apply for admission to this hospital for persons who are not severely ill? The answer is startling, though logical. The so-called clinical picture, the underlying pathological cause of the disease, is not the determining factor as to the patient's eligibility for admission to the institution. Only the degree of impairment of function is considered when deciding the applicant's need. Two forms of disease consitute the proper material for this type of institution: mild illnesses, or those that are already beyond their acute climax; long drawn out conditions called chronic disease. Infectious diseases in the generally known sense are entirely excluded. The author gives a full account of the organization, the construction and the policy to be pursued in managing the institution.

Doctor Goldmann's work deserves special attention in the United States. The type of the Leichtkrankenhäuser is, historically viewed, a recent development. We are interested in it mainly because it offers an outlet for the chronic patients who crowd hospitals not primarily intended for them and who therefore keep out a great number of other patients from these hospitals. This state of affairs is, in addition, uneconomical. On the other hand, the chronics are smuggled in or disposed of in institutions not equipped to give them the type of care needed. The report of chronic diseases in Boston, 1927, the Philadelphia Hospital and Health Survey, 1929, the report of the Massachusetts Department of Public Health, division of adult hygiene, the recent survey of chronic illness by the research bureau, Welfare Council of New York City and, finally, the estimates based on sickness surveys of the Metropolitan Life Insurance Company, reveal an average ratio of one chronic invalid per 172 of the analyzed population. Since there do not exist sufficient institutions providing adequate medical treatment, nursing and custodial care for chronics, the type of Leichtkrankenhäuser could be utilized in America as in Germany. We must remember, however, that Germany is dealing with economic postwar distress. Their Leichtkrankenhäuser are emergency creations. A country as wealthy as the United States cannot be satisfied with a partial remedy for the situation of the chronics, which this is.

Leichtkrankenhäuser a Recent Development

The problems of the hospitals for the chronics (Siechenhäuser) and the homes for the aged (Altersheime) have already been presented by Franz Goldmann in his monumental work which appeared in 1927 in the "Handbuch der Sozialen Hygiene und Gesundheitsfürsorge," Vol. 6, Berlin. Comparison with the present study shows an enrichment of the material with special consideration of the present economic problems in Germany.

The greater part of the book analyzes the caretaking institutions (Bewahrungsanstalten), defines their purpose and explains the necessity for hospitals for the chronically sick and homes for the aged.

The type of individuals to be cared for is discussed and the number of homes for the chronic and the aged and their distribution are made vivid by synoptical presentations. A special section of the book is divided into two sections. The

first is devoted to the hospital for chronic diseases. Site, groups of diseases, the grouping of patients, problems of board and diet, clothing, pocket money and other allowances, attendant staff, medical care, patient's work and occupation, household regulation, administration, technique of admission, the demands for hospitals for chronic diseases and their achievements and costs are the themes of the various chapters. The second subdivision of the special part deals with homes for the aged.

Number of Aged Has Increased

Largely as a result of the World War there has been a substantial proportionate increase in the number of individuals over the age of sixty. It is not advanced age with its natural physical handicaps nor chronic invalidism of itself that compels the afflicted to seek public aid, but their economic complications. Mainly because of social factors such patients belonging to the higher age group fill the general hospitals. Special facilities for the senile and the chronic would release a great number of hospital beds for individuals with acute diseases. Patients should be placed in proper institutions specially prepared to receive them. Establishments of a simpler hospital type than the general hospital must be created to render only custodial and nursing care.

The home for the aged provides shelter and custodial care for indigent persons not encumbered directly by disease. It must not be confounded with the hospital for chronic disease nor with the workhouse. Inmates of a hospital for chronic disease need painstaking medical supervision and continued efficient nursing.

The problem of the chronic patient in America has been summarized in a recent book emanating from the Montefiore Hospital, New York City. That work also contains an abstract of Doctor Goldmann's book (see "The Challenge of Chronic Diseases," Boas and Michelson, Macmillan, New York, 1929, pp. 185-190). The main difference between the handling of the situation by different countries lies in a difference in attitude. In Anglo-American communities the personal sense of duty gave impetus to the organization of institutions. In Germany hospital establishment has been through the channels of public relief. For us this would imply that the public resources should be made more available for the scientific campaign against chronic disease and its effects. The state, being the public representative, seems to be in the best position to take up the challenge of the so-called chronic patient and provide in some way for his care.

A third work by Franz Goldmann tackles another problem of the times, the fostering of the home. The Home Caring Association (Der Hauspflegeverein) has set as its goal the rendering of assistance to families that are without sufficient means and whose household has to be protected and saved from collapse during a crisis. Such aid is given mainly when the housewife is hindered in conducting the home while lying in, while being unable to maintain the household during disease or its consequences. The tendency of women to enter remunerative work outside the home is growing rapidly. Out of eleven and a half million women who were gainfully occupied in Germany in 1925, three million seven hundred thousand were married. The burdens of motherhood, household duties and vocational demands require new social provision for women (sozialpolitische Fürsorge). Dr. Goldmann investigates the needy strata in the population, mentions the historical development of the Home Caring Association that was founded in Frankfurt am Main in the year 1892, and describes its sphere of action. Charitable welfare work is the main activity.

Hedwig Landsberg, Charlottenburg, brings the third volume of the manuals on hospital administration to an end, with her contribution on medical social service work (Sociale Krankenhausfürsorge.) The English form of training for hospital social workers is considered the best. She gives in concise form the historical development, the mission, the organization and the realization of this task in all its special phases. Of greatest use are the directions given that also take into consideration the confessional requirements of sectarian institutions.

Physiological Psychology for the Student Nurse*

A volume that fills a long felt want in the nursing field is "Physiological Psychology" by Dr. J. A. Tobin of De Paul University, Chicago. The book is published at the request of a number of directors of schools of nursing and is the first of its kind written for the student nurse.

"Physiological Psychology" deals with life from an anatomical, physiological and psychological point of view. Its philosophy is based on that of St. Thomas of Acquin. It is sound, and will be found both interesting and instructive.

In the introduction, Doctor Tobin has tersely given the real scope of the book in this paragraph: "Every doctor and nurse who wishes to be successful in the practice of his or her profession must know and treat man as he is; not his mind alone, or his body alone, but the composite man made up of body and mind, each being incomplete without the other."

*Tobin, J. A., Physiological Psychology, Cloth, $2, pp. 139, The Vincentian Press, St. Louis.

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GENERAL ELECTRIC
COMMERCIAL REFRIGERATOR

YOUR EVERYDAY PROBLEMS

A department devoted to the informal discussion of problems arising in the everyday life of the hospital superintendent.

[No attempt has been made to offer final conclusions relative to the questions considered in this department. THE MODERN HOSPITAL will gladly welcome further comment by its readers on any of these problems or the presentation of other queries for discussion in later issues.—Editor.]

Should the Hospital Develop and Read Its X-Ray Films Within the Institution?

This question will appear to many as verging on the ridiculous, while to others better acquainted with practices in small hospitals it will not seem in any degree impractical. In some communities, it has become the custom for small hospitals to pay a modest sum to a local physician skilled in roentgenography, in return for which this doctor nominally is responsible for the conduct of the work in the several x-ray departments of these institutions, while in reality he is director only in name. In such institutions, the equipment of the x-ray department is likely to be most meager. The personnel may consist of a technician who divides her time between this and some other division, such as the laboratory or record room, and who possesses but sufficient skill to make the x-ray exposures. In many institutions, this employee does not even develop the plates. The nominal x-ray director conducts an office for the practice of his specialty in the city or town in which the institution is located. The hospital films are dispatched by messenger to his office where they are developed, read and the report submitted to the hospital first by telephone and usually later through the mail.

In some instances, the director is paid a percentage of the gross fees for the work done. In others, he receives all the fees collected, in return for which he performs the work mentioned and at the same time furnishes the necessary films. The hospital usually supplies the x-ray apparatus, a part-time technician and furnishes heat, light and janitorial services. When x-ray studies are required by ward patients, the institution is frequently required to pay a fee, varying from one to five dollars. In other instances, the hospital pays only for the cost of necessary materials.

It would appear that this is a most inefficient and in many respects a dangerous arrangement so far as the hospital patient is concerned. It is less disadvantageous to the x-ray director, however. No institution of such a size as to require x-ray work should be content with a personnel, any member of which functions largely *in absentia*. When the institution is required to pay a fee for each x-ray study performed for ward patients, the number of such procedures is likely to be small. A study of the statistics in the institutions in which this system is in vogue confirms this statement. Emergency work is most likely to be delayed and even though the roentgenologist is possessed of ample facilities in his office, such an arrangement cannot compare in convenience and efficiency with a proper x-ray department located within the hospital itself.

Of course, where several small hospitals are found in a medium sized city, it is sometimes financially impossible for each to command any great portion of the time of a skilled roentgenologist. In such situations, it would seem sensible and practical for the hospital to arrange for part-time service of this specialist. On the other hand, no matter how small the institution, it would appear that films which have been exposed should not be sent elsewhere for development and reading but that some resident person should be trained to do this work. It may be that a house physician, if there is one, would be glad to add a working knowledge of x-ray procedures to his scientific armamentarium. A graduate floor nurse or clinic nurse could be easily trained to act as an emergency technician.

When the hospital turns its x-ray business over to a nonresident roentgenologist to the extent of sending plates without the institution for development and of referring ambulatory patients desiring x-ray work to this physician's office, it relinquishes a profit-making possibility that should belong to the institution and not to the individual. THE MODERN HOSPITAL advises against any such arrangement and believes that this department should be a source of profit, rather than a financial liability, to the hospital.

How May a Roach Infested New Building Be Freed of These Vermin?

In an Eastern hospital a *de luxe* private room building has become infested with roaches to the extent that its management is daily embarrassed by complaints from patients that roaches have been seen in closets, corridors and diet kitchens. The superintendent is anxious to know whether anything more can be done to solve this difficulty.

A new building should have been so constructed as to make impossible such an infestation. Roaches breed in dark, damp places which should not be found in a new hospital. Water soaked drain boards and particularly sink aprons, supply closets and floor crevices are favorite hiding places for these pests. In this institution, it was thought that the original infestation was brought about by the transportation of roaches from the main storage room to the diet kitchen on the several floors. An added difficulty in this case seems to be that the main kitchen for this building is on the ground floor, while leading from it are ventilator ducts and pipe shafts that probably serve as an avenue by which vermin may reach other floors above. The diet kitchens are sanitary in construction and there are no hiding places in them that would favor the breeding of roaches.

It would seem in this building that the kitchen on the ground floor should be freed of roaches and that an attempt should also be made to rid the main storage room,

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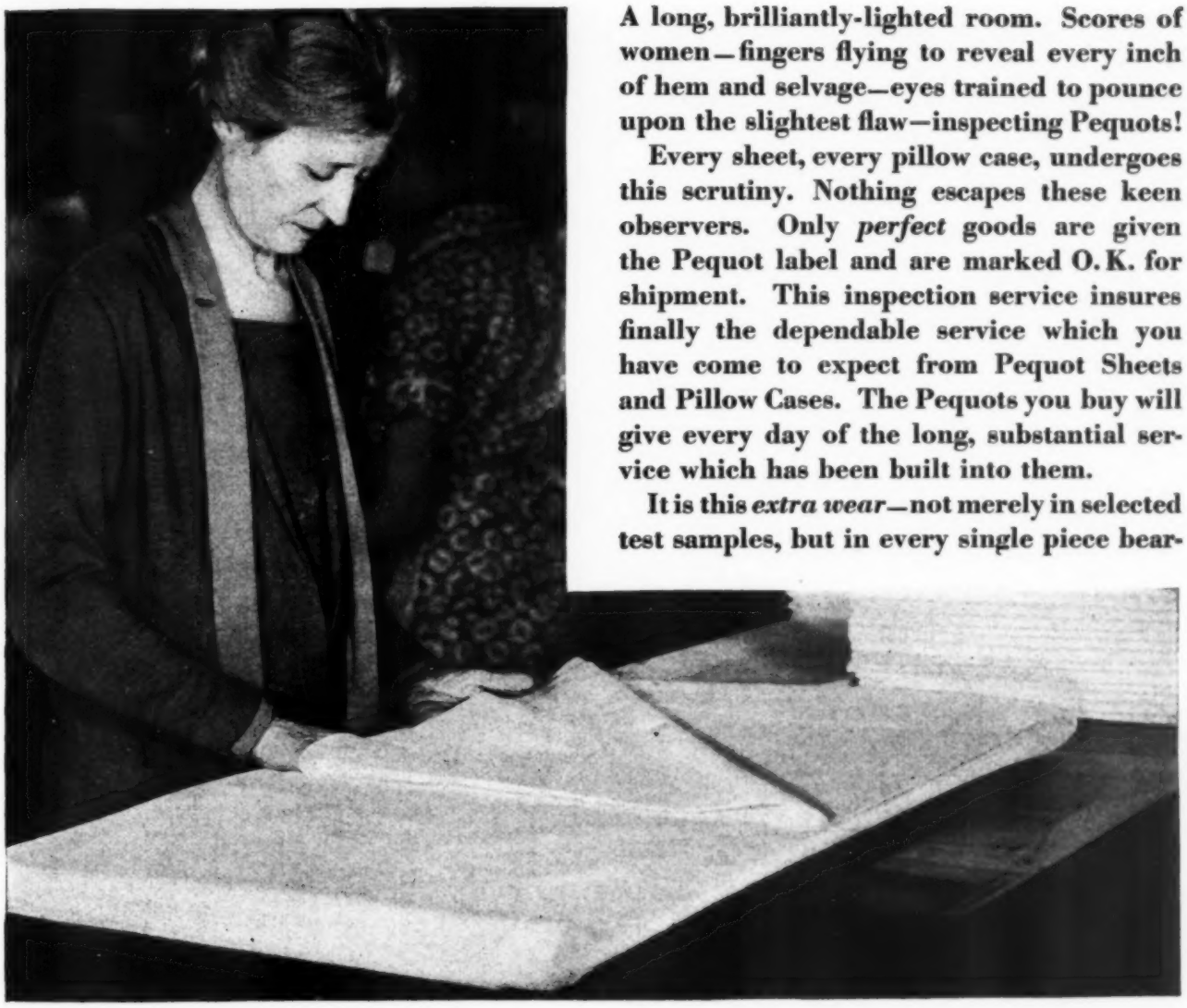

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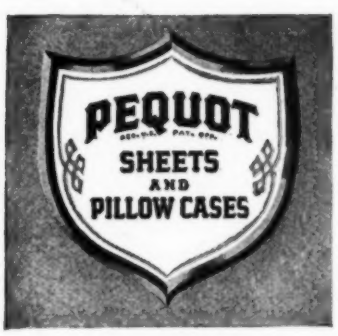

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PEQUOTS ARE USED MORE BY HOSPITALS THAN ANY OTHER BRAND OF SHEETS

which is in another building, of the vermin. When supplies are being dispensed from other storerooms they should be carefully inspected for the presence of vermin. The use of various vegetable roach powders is usually effectual. No one method of ridding a building of such vermin is fully successful, however.

A study as to the methods by which roaches gain entrance to this building and the extermination of those that are already there are but common sense steps in solving this problem. Any modern hospital should be ashamed of the presence within its rooms and wards of roaches, flies, mice, rats or other such vermin. The solution here would seem to lie in improving sanitation in areas without this building.

Should Visiting Be Allowed in the Private Rooms of Maternity Departments?

It is a difficult thing indeed to exclude visitors from any of the private areas in the hospital. It is no doubt true that many persons rent private rooms from the hospital because of the flexibility of visiting rules governing these accommodations. In most institutions visitors are allowed throughout the greater portion of the daylight and evening hours in private rooms. The hospital that is largely dependent on the income from such services rightfully hesitates to restrict these privileges.

Yet it seems that in the maternity department a somewhat different situation exists from that that is found elsewhere. In most hospitals there is a common nursery. Visitors are rightfully prohibited from within its confines. Visitors are also prohibited from handling babies in ward units. Every effort is made to prevent all persons from without the hospital from coming in contact with the newborn. No one can dispute the wisdom of such a rule. Yet when babies are removed at nursing time from the common nursery to private rooms and when visitors are permitted with or without the knowledge of the floor nurse in charge to fondle them, a direct possibility of infectious contact arises.

It seems foolhardy to restrict visiting to the nursery when a potentially infected baby is thus returned to it and the remainder of the infants are thereby exposed by its presence. Many hospitals have placed their visiting periods at times other than nursing hours. This would seem to obviate the strong probability that babies will be handled by fond relatives who may have come from infected areas or at least have been in contact with contagion or infection en route to the hospital.

It cannot be said that restricting visitors to maternity private rooms is a wise step economically or socially but it can be asserted as an ideal that the least contact outside persons have with the newborn the greater will be the possibility of minimizing the incidence of infection or contagion in this department.

Should Nurses Be Required to Take Inventories?

This question has been asked by a superintendent of nurses who believes that actual nursing of sick persons is all that is required of her department and that a request for an inventory of ward property represents an act of unfairness on the part of the administrator that should be resented. There is too much talk nowadays concerning the rights and privileges of nurses. One observes too often an inclination on their part to place themselves on the defensive when duties that do not strictly represent the actual nursing of patients are assigned to them.

The supervisor of nurses is rightfully the administrator of the department to which she is assigned. She is responsible for all ward property that is necessary for the proper medical and nursing care of the patients being treated in her division. To her are issued drugs, a blood pressure apparatus, needles, pus basins, rubber goods and all other articles and supplies basically required. It is she who is responsible for the safekeeping of these goods. Theft and loss cannot be prevented unless periodic inventories are taken. She would be equally as justified in doubting the fairness of a requirement more certainly connected with the nursing of patients as in shunning the duties necessary to safeguarding such property.

The day has not arrived when a clearcut line can be drawn which will differentiate bedside nursing from many other necessary duties that make possible such services to the sick. No directress of nurses has a right to serve within an institution unless she is willing to cooperate generally as well as specifically with all others engaged in the business of caring for those who are ill. The superintendent of nurses in this particular institution is certainly not justified in her attitude. It is the opinion of THE MODERN HOSPITAL that nurses who choose to be hospital administrators, whether of a department or of an entire institution, should lay aside prejudices and fears relative to possible impositions on them by others and should remember that they owe to the hospital which they are serving the fullest cooperation along every line.

Should the Superintendent of the Hospital Be a Physician?

This question has been debated pro and con in hospital circles for many years. In the particular community from which this query comes, a group of interested persons believes that a physician whose training and education fit him for the conduct of both the business and the medical aspects of hospital work would be preferable to a lay superintendent.

It is interesting to note that of the 90,903 physicians belonging to the American Medical Association there are 2,448 hospital superintendents of whom 1,313 occupy full-time administrative positions.[1] The remainder of the nearly 8,000 hospitals in the United States are administered by nurses and lay men and women of more or less adequate medical and business training. It goes without saying that the hospital superintendent must possess the quality that has been termed a "medical-social consciousness." He need not always be a graduate in medicine to be successful. Yet it cannot be denied that the training of a nurse or a physician is often found advantageous in the administration of hospital affairs. On the other hand, the most skilled physician might utterly fail to understand the physical problems that present themselves, while it must be also remarked that a superintendent may present a record of efficiency in the business world of which anyone might well be proud and yet absolutely fail as a hospital executive.

No one can submit a hard and fast rule covering the type of person best fitted for hospital work. If a physician can be secured with a strong trend towards and a liking for business matters and who at the same time possesses that valuable quality called tact, which has been translated into administrative ability, he is likely to possess favorable qualities for hospital work. In the community to which reference has been made it would seem, since there is a strong feeling towards securing a physician as superintendent of the local hospital, that this effort should be made.

[1] Journal of the American Medical Association, 92-13, Vol. 1057.

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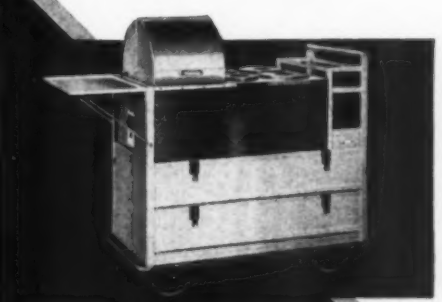

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Should General Hospital Nurses Care for Contagious Diseases?

This question emanated from an institution in which there has been built recently a contagious unit to provide for patients with scarlet fever and diphtheria. It is the plan to care for such patients with pupil nurses and to house these young women in the general nurses' home. There has arisen on the part of some in the community a fear that it will be unsafe for their friends and relatives to enter the surgical and medical departments of this institution because they know that they will be nursed by the same persons who also handle, at certain times, contagious disease patients.

It would seem in the light of our twentieth century knowledge concerning the methods by which contagious diseases are disseminated that this fear is entirely unfounded. Contagion is not scattered by gusts of air nor are there in this day of scientific understanding any mysteries as to the manner by which such diseases are transmitted from the sick to the well. The transference of the germs of scarlet fever, for example, from the afflicted to the noninfected in a great majority of instances is directly traceable to the contact with the latter of unclean hands, gowns or playthings. It should not be difficult in the institution mentioned to prevent direct or indirect contact between the patients suffering with these diseases and those being treated in remote portions of the hospital.

If this unit has been properly constructed there will be at hand proper facilities for carrying out efficient aseptic nursing. Ample wash basins, gowns, lockers for the storage of infected clothing, properly arranged exits and entrances all should be provided as physical aids in limiting contagion to the area in which it is being treated. To be sure, the instruction of nurses as well as all other members of the hospital's personnel in the science and art of contagious care must be most carefully done. It has been found feasible and practicable for pupil nurses after having removed infected clothing and having scrubbed infected hands to emerge safely from a contagious area and thence to mingle freely with their colleagues.

The greatest attention should be given to preventive medicine measures tending to protect nurses from contracting these conditions. It is during the period of incubation before diagnostic signs are fully evident that not a little danger of the dissemination of infection exists. The young nurse who fails to report a sore throat may be a source of danger to her fellows. With adequate instructions along this line, however, such hazards should be reduced to a minimum. THE MODERN HOSPITAL congratulates the institution from which this question came because it is manifesting a proper faith in the scientific practices of modern medicine. An appreciation of the fact that surgical cleanliness only is necessary to prevent contagion from spreading is wholly commendable.

Does the Hospital Discriminate Unduly Between Free and Pay Patients?

A traveler is often impressed by the fact that the class distinction that is made between the various grades of passengers on the boats is uncomfortable to those of finer instincts but thinner purses.

When one considers the varying facilities the hospital offers to members of the various economic classes he must conclude that something of the same feeling must exist in the minds of ward or even semiprivate patients. The question has been often asked whether the ward patient is unduly discriminated against and whether the buying power of money is made too evident in the conduct of the hospital. Sitting rooms and roof gardens are always provided for private patients whereas outdoor space is frequently lacking for those who are treated in wards.

In many institutions a difference exists in private and ward dietaries which is disproportionate to the patient's needs. The entrances to hospitals are often so arranged that ward and private patients are never in contact. Nevertheless, it has been truly said that ward patients often receive better medical attention than those in private rooms. This, perhaps, is more likely to be true in teaching hospitals than in the private institution. There can be no class distinctions affecting the medical care given to any type of patient. The hospital would not be living up to its obligations to the community if such were the case.

It would seem that the distinction between private and semiprivate as compared with ward service should consist altogether of a difference in luxury of appointment rather than in the adequacy of medical care. Nor should the ward patient be made to feel by any variance in the attitude of the nurse or physician any inferiority because of his particular place in the hospital. Any other basis of behavior would be undemocratic and unworthy of a civilization which American hospitals are supposed to represent favorably.

Is the Dietitian Just an Educated Kitchen Worker?

In studying the organization and personnel of the nation's hospitals, it is interesting to note how frequently the department of dietetics is subordinated to many of the other activities in these institutions.

The tendency in small hospitals particularly seems to point toward combining the duties concerned in the purchase, preparation and transportation of food with those of some other employee. The latter often strongly outranks the former in importance and standing in the hospital. Sometimes one finds the superintendent of the hospital buying food and preparing menus in addition to his or her other duties. Again one observes a combination of the work of the housekeeper with that usually assigned to the dietitian. Rarely does one find a well trained dietitian who is majoring as the head of the food department while at the same time she is performing less important but perhaps not unnecessary work.

Perhaps if one might make bold to hazard any comparisons on this subject it might be said that less efficient work is being done along dietetic lines in our hospitals as a whole than in few other institutional departments. More often than not an effort is made to furnish food to patients in such quantity and variety that they will not complain of hunger, while the scientific side of dietetics remains far in the background. Often, balanced menus, weighed diets and caloric values are subjects entirely foreign to the comprehension of many persons who are endeavoring to prepare hospital menus.

The dietitian is an educated kitchen worker but she also should rank as a member of the major faculty of the hospital staff because she has a contribution to make if she be well trained, which is hardly less important than that expected from the director of the x-ray or clinical laboratory. The wise hospital superintendent recognizes the importance of dietetics by engaging a well trained woman to supervise the food laboratories of his institution and by paying an adequate salary for her services. The dietitian should stand at the head of the food department.

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A common sense solution to the problem of buying

In a splendid article appearing in a recent issue of the Modern Hospital, Jay R. Rhoads takes up the question of buying supplies.

Examining it from every angle, evaluating every method, he concludes that the solution of hospital buying problems will come with co-operation between a group of hospitals and a manufacturer.

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NEWS OF THE MONTH

Standardization Conference to Be Held October 13-17

Leaders in the hospital field and in the medical, nursing and allied groups will assemble in Philadelphia the week of October 13 for the thirteenth annual Hospital Standardization Conference of the American College of Surgeons which will be held at the same time as the clinical congress.

The program will deal with ways and means of improving all phases of hospital administration more particularly as it relates to the economic and efficient care of the patient. New problems are constantly arising in the hospital field and certain aspects of old ones are present, all of which require group discussion. Year after year progressive hospital executives must add to or adjust their knowledge of hospital administration in order to keep abreast of progressive methods. Nowhere can this be accomplished more expeditiously than through conferences where all persons unselfishly pool their knowledge.

Program Will Be Varied

The program will consist of addresses, papers, round table conferences and general discussions. These will embrace such practical topics as the following: Responsibility of the Fellows of the College in Furthering the Hospital Standardization Movement; What the Hospital Standardization Movement Means to the Present Day Practice of Medicine; What Is the Ideal Hospital? Problems of the Rural Surgeon and Their Solution; Cooperation in the Hospital; a Study of Acute Appendicitis in an Approved Hospital for the Purpose of Evaluating the Benefit of Staff Conferences; the Coordination and Integration of the Gynecologic-Obstetric Service in a General Hospital; the Organization and Control of the Courtesy Staff in a General Hospital; the Liaison Committee as a Means of Promoting Cooperation Between the Medical Staff and the Hospital Management; Is the Private Patient Getting a Square Deal? Important Basic Considerations in Maintaining an Adequate X-Ray Service in Various Sized Hospitals; Autopsies, Their Value and Certain Factors That Will Influence Their Increase; the Absorption of Special Charges in Hospitals; the Hospital's Teaching Responsibility; the Organization of the Record Department; Centralization of Medical Statistics in the Record Department; the Rôle of the Student Nurse in the Clinical Record; Case Records and Staff Conferences.

There will be two interesting round table conferences, one dealing with "Functions, Relationships and Responsibilities—Boards of Trustees, Medical Staffs and Superintendents," and another with "Medical and Hospital Economics."

A round table conference of unusual interest to hospital trustees, superintendents, members of medical staffs, nurses, social workers and others will be conducted by the clinical research division of the college, Thursday morning, October 16. The subject to be discussed will be "The Rôle of the Medical Staff and Hospital Management in the Cancer Problem." A special program of unusual interest to hospital trustees, superintendents, members of medical staffs, business managers of hospitals and others will be presented by the board on traumatic surgery, Friday morning, October 17. The program will deal with the economic, administrative and scientific aspects of the injured patient.

Those charged with the responsibility of preparing the program have kept in mind the various interests of hospital trustees, hospital executives, members of medical staffs, nurses, social workers, dietitians, technicians, record librarians and others who are concerned with the welfare of the patient. In this way the program will be of the broadest interest and of the greatest practical benefit to all present. Since the success of any program depends on the variety and thoroughness of the discussions, ample time will be given to the presentation of each topic. In every way the college is desirous of making this conference a "clearing house," so to speak, for hospital problems as well as for the presentation of end results of well tried methods or procedures as they affect the many administrative problems involved in the care of the patient.

A cordial invitation is extended to all to attend. It is hoped that as many hospitals as possible through their trustees, superintendents, medical staffs or others, will be represented at the conference and that all who attend will take an active part in the discussions of each session.

Dr. S. S. Goldwater Named as Consultant for New County Infirmary

By unanimous vote of the supervisors of Monroe County, N. Y., Dr. S. S. Goldwater, New York City, has been engaged to act as consultant in the preparation of plans for a new county hospital designed to accommodate at the outset 350 patients. The resolutions adopted by the board of supervisors read as follows:

WHEREAS this board after careful study of conditions at Monroe County Home and Hospital authorizes the building commission to employ an architect to prepare plans and specifications for a new county home and infirmary; and

"WHEREAS it seems advisable that the county employ a hospital expert as consulting architect in the preparation of plans for the infirmary,

"BE IT RESOLVED that this board hereby authorizes the commission on public buildings to employ Dr. S. S. Goldwater, New York City, a nationally recognized authority on hospital construction, to act as consultant in the preparation of plans and specifications for a new infirmary."

Doctor Goldwater's architectural collaborator in the task which the Monroe County supervisors have assigned to him is S. Firestone, Rochester, N. Y.

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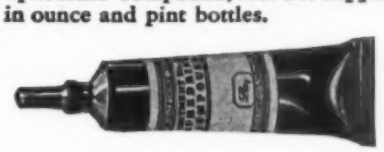
Inhalant Ephedrine Compound, No. 20, for treatment of head colds and nasal congestion. A combination of 1 percent ephedrine in oil, with camphor 0.66 Gm., menthol 0.66 Gm., and oil of thyme 0.31 cc. in 100 cc. Supplied in ounce and pint bottles.

Ephedrine Jelly contains ephedrine sulphate 1 percent, eucalyptol 0.1 percent, with aromatics in a water-soluble base. Designed for use with children. It is supplied in one-half ounce nasal-tip tubes.

Other Lilly Ephedrine Products supplied through the drug trade: Ampoules Ephedrine Sulphate, 3/4 gr., 1 cc.; Hypodermic Tablets, 1/4 gr. and 1/2 gr., of both ephedrine sulphate and ephedrine hydrochloride; Syrup of Ephedrine, 1 gr. to the ounce, and 2 grs. to the ounce.

Three percent aqueous solutions of both ephedrine sulphate and hydrochloride are available, for use full strength or diluted with distilled water as preferred by physicians. Supplied in ounce and pint bottles.

Inhalant Ephedrine Plain, No. 21, designed to meet the requirements of physicians who prefer a plain oil solution uncombined with other agents. Indications same as for Inhalant Ephedrine Compound, No. 20. Supplied in ounce and pint bottles.



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Two sizes are available in Pulvules (filled capsules) of both ephedrine sulphate and ephedrine hydrochloride for oral use. Supplied in 0.025 Gm. (3/8 gr.) Pulvules and 0.05 Gm. (3/4 gr.) Pulvules in bottles of 40 and 500.

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News of the Month

Miss Loveridge Resigns After Forty Years of Service

After forty years of service as superintendent of Good Samaritan Hospital and its nurses' training school, Portland, Ore., Emily L. Loveridge has resigned to retire to private life. Miss Loveridge will be succeeded by her close friend, Carolyn E. Davis, superintendent, General Hospital, Everett, Wash.

The Rt. Rev. Walter T. Sumner, Episcopal Bishop of Oregon and president of the hospital board of trustees, in making the announcement of Miss Loveridge's resigna-

tion, said that she was being retired on full salary "that she may be able to enjoy her remaining years without financial anxiety."

"To the people of Oregon, Miss Loveridge's name is synonymous with that of the Good Samaritan Hospital," Bishop Sumner said. "She has been its guiding spirit from its earliest days to the present."

"Miss Loveridge is credited by the public with having accomplished the greatest achievement of any woman in Oregon," an article in THE MODERN HOSPITAL for November, 1926, said of her. "Physicians are in accord with such public opinion and also mention with pride, that Oregon's most famous woman belongs to the medical profession. Such an accomplishment of having brought a hospital in the wilderness to the first rank in efficiency among modern hospitals is an achievement unsurpassed in the history of nursing in America."

Miss Davis, who succeeds Miss Loveridge, is a trustee of the American Hospital Association and president of the Northwest Hospital Association. She became assistant superintendent, Minor Hospital, Seattle, Wash., in 1915 and superintendent in 1921. In 1928 she became superintendent of General Hospital, Everett, Wash.

New Marine Hospital May Be Named for Doctor Rucker

The new marine hospital to be built in New Orleans will be called "Rucker Hospital" if the resolution passed by the Association of Commerce of that city is accepted, a recent news release states.

Ground was broken on July 12 for the erection of the new 600-bed, $2,000,000 hospital.

"The credit for the plans for the hospital justly belongs to the late Dr. W. C. Rucker," said Congressman James O'Connor who spoke at the ceremonies. "He conceived the idea for a new hospital while serving at the head of this great institution six years ago. He was always a constant inspiration to those of us who have worked to have the Government establish in New Orleans, a modern, second to none, marine hospital."

Senator Joseph E. Ransdell turned the first spade of dirt in the ground breaking exercises.

A. M. A. Names Dr. E. Starr Judd President-Elect

Dr. E. Starr Judd, Mayo Clinic, Rochester, Minn., was named president-elect of the American Medical Association at its eighty-first annual session, Detroit, June 23-27. Dr. William Gerry Morgan, Washington, D. C., serves the association as president during the coming year.

Louis J. Hirschman, Detroit, was elected vice-president. Dr. Olin West, Chicago, was reelected secretary, and Dr. Austin A. Hayden, Chicago, was named treasurer.

Dormitory for Colored Nurses Given to Medical College of Virginia

Plans for a six-story dormitory and educational unit for the St. Phillip Hospital School of Nursing, Medical College of Virginia, Richmond, have been announced by Dr. W. T. Sanger, president of the college. The building, to be completed within a year, will cost about $120,000. It will house the colored graduate staff and nurses attached to St. Phillip Hospital.

Funds for the project were donated by the Rosenwald Fund, Chicago, and the General Education Board, New York City.

The new unit will have housing accommodations for approximately a hundred persons. On the basement floor will be a large auditorium, library, laboratory and teaching rooms. The main floor will provide social and recreational features. The four upper floors will be devoted exclusively to living quarters for nurses and physicians attached to the colored hospital.

When Charles A. Lindbergh guided his monoplane, the "Spirit of St. Louis", to a safe landing at Le Bourget, Paris, May 21, 1927, a new era in American aviation dawned. For the first time the public was "air-minded". And this spanning of the Atlantic Ocean was practical proof that the airplane would increasingly influence the physical and mental statue of America.

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This is number 18 of a series depicting historical periods in the development of America

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News of the Month

International Hospital Committee Discusses 1931 Congress

Dr. René Sand, Belgium, chairman, International Hospital Committee, called together the members of the committee in Paris on June 25 to discuss the organization of the second International Hospital Congress and the creation of an International Hospital Association. The second congress is to be held in Vienna, June 8 to 13, 1931, and Prof. J. Tandler, Austria, is hard at work on plans to assure the delegates a hearty welcome to his country.

Other members of the committee meeting with Doctor Sand in Paris were: Professor Tandler, vice-chairman; Dr. E. H. L. Corwin, United States, secretary general and treasurer; W. H. Harper, England; J. A. Brizon, France; Dr. W. H. Mansholt, The Netherlands; Dr. J. P. Kinloch, Scotland; Dr. H. Frey, Switzerland; Geheimrat Dr. Alter, Germany; Dr. Walter Conley, United States; M. Gouachon, France; Mr. Hoekstra, The Netherlands; Christiane Reimann, Switzerland, International Nursing Council.

Plans Made for Coming Congress

The following recommendations concerning the coming congress were made: that a national committee and a patrons' committee be organized by Professor Tandler; that the meetings be held from nine to twelve o'clock in the mornings, leaving the afternoons free for organized visits; that premises be chosen for the accommodations of the congress and its various services, together with the exhibition; that to the commissions already appointed by the chairman to report on hospital building costs, nursing, hospital terms and definitions, hospital laws and auxiliary activities be added a commission on the cost of maintaining patients in hospitals and that, after the distribution of the reports, congress members be invited to send their written remarks to the chairman of these committees.

The committee recommended that the subjects for discussion at the congress be as follows: "Dispensaries," Dr. E. H. L. Corwin, New York City; "Nutrition," Professor Van Noorden, Vienna; "Effect of Health Insurance on Hospital Practice," Dr. Smith Whittaker, London; "The Place of Neurology and Psychiatry in the General Hospital," Doctor Alter, Dusseldorf. It also suggested that in the commission reports and in the discussion of the subjects the administrative and economic viewpoints be given special attention; that the International Hospital Exhibition should pay its own way, the scientific exhibits being received free and the commercial exhibits paying for space; that the Austrian government be asked to send official invitations to all governments, the International Hospital Committee sending invitations to the international organization; that invitations be sent by Professor Tandler to all national hospital associations, and as far as possible to every hospital; that propaganda begin as soon as possible in the countries represented at Atlantic City as well as in the other countries, by application in the latter case to the central health authorities; that subscriptions and membership fees ($5) be sent to Professor Tandler; that traveling arrangements be in charge of the American Express Company and the Vienna Traveling Bureau; that every member of the congress be enabled to join the American party in London, to proceed further to Denmark and Germany; that all congress members be invited to meet in Passau and proceed from there to Vienna by steamship, and that a visit to Budapest be organized.

The organization of an International Hospital Association was also considered. The committee decided that such an association should be formed as soon as feasible and that it should be composed of national hospital associations as members. The council of this association would consist of twelve experts on hospital questions, appointed by the chairman of the present International Hospital Committee, to be later perpetuated by cooptation; there would be one delegate for each country, appointed by the government; for each country in which there exists a national hospital association, two delegates would be appointed by the association. It was further suggested that the council should appoint an executive board including the president, the president elect, the secretary general and treasurer, and six other members; that the annual fees be paid by national hospital associations on the basis of $2 for 1,000 beds existing in their respective countries; that an International Hospital Bureau be created in New York and that, in conformity with the resolution adopted in Atlantic City, the chiefs of the states represented be invited to become honorary presidents.

International hospital publications were also discussed. Geheimrat Dr. Alter stated that he has been asked by the Kohlhammer firm in Stuttgart to edit this summer an international year book, to be continued by an international hospital quarterly magazine, to be called *Nosokomeion*. The first number will be devoted to the relation of the medical profession to hospitals, the second to the relation of the nursing profession to hospitals, the third to the topics of the Vienna Congress, the fourth to the economic and administrative problems of hospitals. The magazine will publish articles in English, French or German, with brief translations in the other languages, as well as a bibliography. Doctor Alter asked the cooperation of the members present, as well as of the International Hospital Committee.

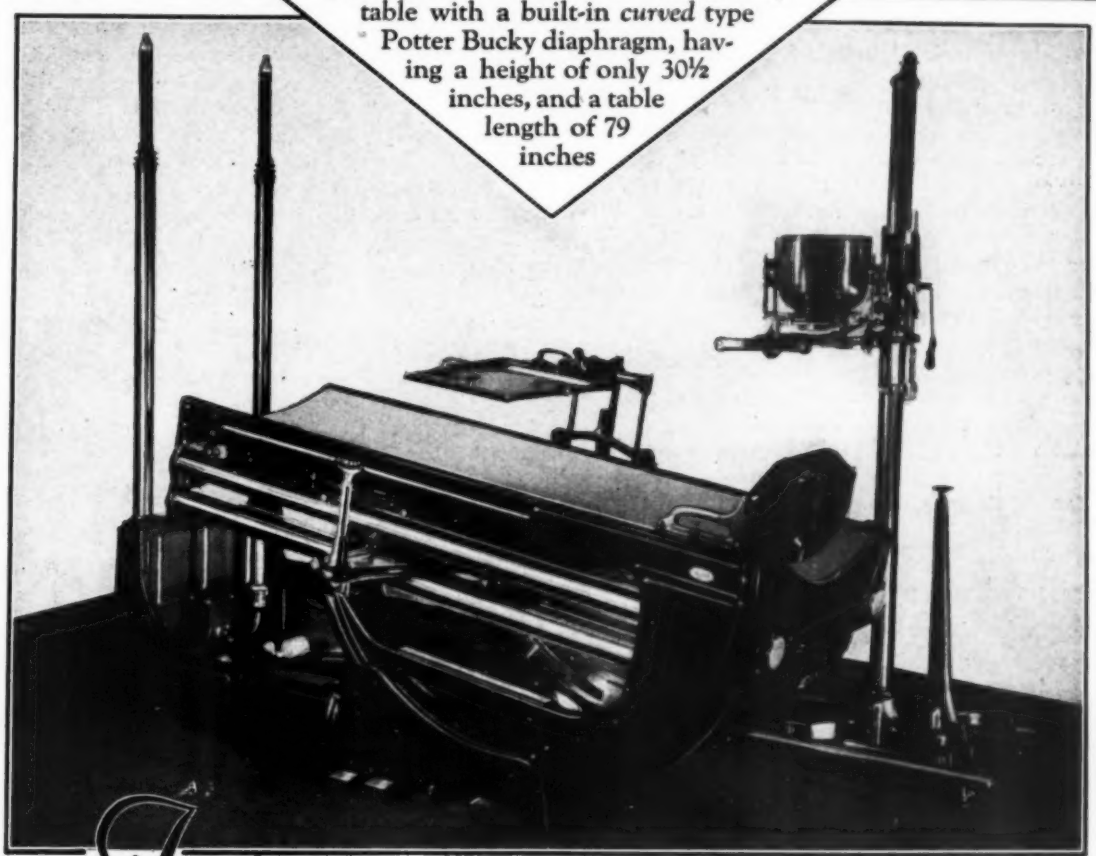
Manufacturers to Build Home for Aged and Ill Employees

A fund of $1,000,000 has been set aside by two Philadelphia manufacturers to care for their aged and ill employees, according to recent news dispatches. Of that amount $300,000 will be used to build and equip a combination home and hospital in which aged employees may live during the later years of their lives and in which medical aid may be given to any ill or incapacitated workers. The remainder of the fund will form an endowment for the maintenance of the institution. The originators of the idea are Charles C. Drueding and Henry G. Drueding.

Provisions will be made for the wives and dependent families of workers of the factory who are retired. According to this plan, a man and his wife may make their home together at the infirmary when his years of active service in the plant are at an end.

BETTER END RESULTS ARE NOW ASSURED BY THIS RADICAL AND UNIQUE TABLE DESIGN

For the first time there is presented to the profession a combination tilting x-ray table with a built-in *curved* type Potter Bucky diaphragm, having a height of only 30½ inches, and a table length of 79 inches



Think of the additional advantages that you would realize with this table in your x-ray laboratory.

You may readily see in the illustration how this design differs radically in principle from all others. Note the conspicuous absence of pivot point at either upper or lower edge of the table. Instead, the table is supported on the two geared rockers, with the motor power plant and its control system situated close to the floor. Thus engineering ingenuity has provided the necessary clearance under the table top to permit unhampered movement of both the *curved* Bucky diaphragm and fluoroscopic unit along the entire length of the table.

Furthermore, it offers the choice of open air tubes or shock-proof heads (tubes immersed in oil) for either radiography or fluoroscopy—or both.

Unit type of construction makes it possible to furnish any desired combination diagnostic service in this table, according to your particular requirements.

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News of the Month

Tuberculosis Association Asks Help on Survey

The National Tuberculosis Association and the Committee on the Cost of Medical Care are engaged in a survey of the extent and character of preventive medical services in industry throughout the United States with particular reference to the number and type of physical examinations given.

They are at present endeavoring to obtain as many lists as possible of plants that are thought to have physical examinations or preventive medical services for their employees. To these companies, they are sending questionnaires to determine the nature of their medical service.

They will be grateful for: the names of any plants where workers are given physical examinations for employment or periodically thereafter; the names of physicians or medical organizations that contract with industrial establishments to provide physical examinations for employees; prompt attention and cooperation on the part of those who receive questionnaires.

Information on the subject should be sent to Elizabeth Dublin, research Fellow, National Tuberculosis Association, 370 Seventh Avenue, New York City.

Louis J. Bristow to Welcome A. H. A. Delegates to New Orleans

Louis J. Bristow, superintendent, South Baptist Hospital, New Orleans, is to head the committee on local arrangements for the meeting of the American Hospital Association in New Orleans, October 20-24. Mr. Bristow takes over these duties as a result of the death of Dr. W. C. Rucker, who was to have welcomed the delegates.

Boris Fingerhood Heads Hospital Council of Brooklyn

Boris Fingerhood has been elected president of the Hospital Council of Brooklyn, succeeding the Rev. Charles Henry Webb, director, Church Charity Foundation. L. M. Arrowsmith, St. John's Hospital, was elected secretary.

The by-laws of the Brooklyn Council have been changed to include the city, private and semiprivate institutions of Queens as well as Kings County, N. Y. Plans and programs for the coming year will be announced by the council at its October meeting.

A Contagious Unit for Wilmington General Hospital

The Wilmington General Hospital, Wilmington, Del., which recently completed a new main hospital building and a new nurses' home, is about to add to the hospital group a separate contagious wing. The wing is designed to replace the antiquated and inadequate building which has hitherto been used for the care of contagious cases. The importance of the enterprise is enhanced by the fact that Wilmington has no municipal hospital for contagious cases.

Plans for the new building are being drawn by the Wilmington firm of Brown and Whiteside, under the direction of Dr. S. S. Goldwater, consultant. A flexible ward arrangement has been adopted to facilitate the care of fluctuating numbers of men, women and children, of both private and ward patients and of a variety of communicable diseases. The wards are grouped about a central admitting and discharging station and occupy the first floor of the building. The ground floor will contain kitchen, dining rooms and other necessary facilities. A second story is designed for the accommodation of nurses caring for the patients in this unit.

Coming Meetings

American Association of Hospital Social Workers.
President, Edith M. Baker, Washington University Dispensary and Allied Hospitals, St. Louis.
Executive secretary, Helen Beckley, 18 East Division Street, Chicago.
Next meeting, New Orleans, October 20-24.

American College of Surgeons.
President, Major General Merritte W. Ireland, Surgeon General, U. S. Army, Washington, D. C.
Director General, Dr. Franklin H. Martin, 40 East Erie Street, Chicago.
Next meeting, Philadelphia, October 13-17.

American Dietetic Association.
President, Anna E. Boller, Riverside, Ill.
Business manager, Dorothy Lenfest, 25 East Washington Street, Chicago.
Next meeting, Toronto, September 8-10.

American Hospital Association.
President, Dr. Christopher G. Parnall, Rochester General Hospital, Rochester, N. Y.
Executive secretary, Dr. Bert W. Caldwell, 18 East Division Street, Chicago.
Next meeting, New Orleans, October 20-24.

American Occupational Therapy Association.
President, T. B. Kidner, 175 Fifth Avenue, New York City.
Secretary-treasurer, Mrs. Eleanor Clarke Slagle, 175 Fifth Avenue, New York City.
Next meeting, New Orleans, October 20-24.

American Protestant Hospital Association.
President, Luther G. Reynolds, Seattle General Hospital, Seattle, Wash.
Executive secretary, Dr. Frank C. English, Hyde Park, Station O., Cincinnati.
Next meeting, New Orleans, October 17-20.

Association of Record Librarians of North America.
President, Mrs. Jessie Harned, Chicago.
Corresponding secretary, Ruth T. Church, Boston City Hospital, Boston.
Next meeting, Philadelphia, October 13-18.

Catholic Hospital Association.
President, Rev. Alphonse M. Schwitalla, S.J., dean, Medical School, St. Louis University, St. Louis.
Executive secretary, M. R. Kneifl, 1327 South Grand Boulevard, St. Louis.
Next meeting, Washington, D. C., September 1-5.

Children's Hospital Association of America.
President, Dr. Howard Childs Carpenter, 1805 Spruce Street, Philadelphia.
Secretary-treasurer, Bena M. Henderson, Milwaukee Children's Hospital, Milwaukee.
Next meeting, New Orleans, October 20-24.

Ontario Hospital Association.
President, R. H. Cameron, 62 Wells Hill, Toronto.
Secretary-treasurer, Dr. F. W. Routley, Medical Arts Building, Toronto.
Next meeting, Toronto, October 1-3.

Western Hospital Association.
President, Dr. Fred C. Bell, Vancouver General Hospital, Vancouver, B. C.
Secretary, Grace Phelps, Doernbacher Memorial Hospital, Portland, Ore.
Next meeting, Vancouver, August 19-22.

Success a New Way...
Constipation Now Answers
to a *New, Delicious Food*

Not even children can resist it. Dietitians will be interested in it.

Patients are human. It is difficult to make them eat what they don't like. Thus, doctors and dietitians are defeated in many cases through no fault of their own, but by the patient's lack of will.

HEINZ of "57" fame now offers something to help in changing this condition.

This entirely new aid in treating constipation comes in a *new form of cellulose,* highly refined.

It is *exactly the same type* of cellulose contained in celery, cabbage, lettuce, spinach and asparagus, so it is an edible, pure, natural food-substance—not artificial in any way whatever.

It increases in bulk *four to six times* when moisture is absorbed after eating, forming one of the mildest, gentlest and most effective types of bulk and roughage known.

Hundreds of doctors and hospitals from all parts of the country responded immediately to our first announcement of it. Interest is widespread and intense.

WHY LIKED

HEINZ experts, with able scientists collaborating, worked eight years to develop and perfect this cellulose . . . finally isolating it from rice.

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To people who "don't like vegetables" —children especially—you are thus enabled to serve a *natural vegetable-type of bulk and roughage* in a breakfast cereal as charming as any child or adult could desire.

Because this new food is so readily accepted, it makes many diets *successful* that otherwise might fail to bring relief.

FREE

. . . Full-size packages to try

(See Coupon)

E. R. Harding, M.A., Fellow of Mellon Institute of Industrial Research, University of Pittsburgh, in a recent article says:
"That cellulose is both a natural and valuable food constituent is evident.
"That it is practically essential is not too extravagant a claim.
"It is found widely distributed in nearly all natural vegetable foods. It is particularly high in such vegetables as celery, lettuce, cabbage, spinach and asparagus. Fruits like oranges, grapefruit and others of this type contain considerable amounts of it."

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This new cereal is different from all others. Don't confuse it with bran-foods. It contains no bran.

Because of its mild, gentle, natural character, you can serve it in those instances where harsher methods would be too severe—even where some vegetables might be irritating. Like any other natural, good food, it can be eaten daily for a lifetime by the average person with only good results.

Of course we do not advocate HEINZ Rice Flakes as a substitute for vegetables, but as a *supplementary food.* Where there is constipation, and a breakfast cereal is part of the patient's usual morning meal, that cereal might just as well be HEINZ Rice Flakes because both the patient and you will gain from its use.

Only one caution: Be sure in ordering that you get *HEINZ* Rice Flakes, because no other can include this valuable, new feature.

RICE'S FULL NUTRITION

HEINZ Rice Flakes provide all the valuable energizing nutriment of rice. Nothing is omitted to make room for the cellulose. HEINZ Rice Flakes are, therefore, *rice flakes plus!*

FREE TRIAL

We want *you* to try HEINZ Rice Flakes at no expense to you. The Heinz salesman will supply you with free packages for tests. In testing be sure only that the patient eats this food *twice daily for one week* to start the benefits. Once daily thereafter is sufficient to maintain them.

We'll send additional interesting information about this new-type cellulose together with comments by well known authorities if you'll mail coupon below. Please send the coupon now.

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HEINZ RICE FLAKES

News of the Month

South Dakota Hospital Association Holds Two-Day Meeting

Newly elected officers of the South Dakota Hospital Association, which recently held a two-day meeting in Aberdeen, are as follows: president, Dr. R. S. Westaby, Madison; vice-president, Mother Raphael, Sioux Falls; secretary, C. W. Carlson, Sioux Falls; trustees, the Rev. H. W. Bunton, Brookings, and Dagmar Einspahr, Redfield. The next annual meeting will be held in Madison.

One of the topics discussed at length by the hospital delegates was the matter of fees as connected with the Workmen's Compensation Act. While no definite solution of the problem was reached, the association voted to give the legislative committee full power to handle the matter.

Round table conferences were in charge of Paul H. Fesler, superintendent, University of Minnesota Hospital, Minneapolis. Addresses were made by Dr. Bert W. Caldwell, executive secretary, American Hospital Association, Dr. H. Russell Brown, Watertown, S. D., Clyda E. Lusk, superintendent, Madison Hospital, Madison, S. D., Victor Anderson, superintendent, Abbott Hospital, Minneapolis, D. L. Braskamp, superintendent, Lincoln Hospital, Aberdeen, and president of the association, and by Mr. Fesler.

Cincinnati to Have New Home for Convalescent Children

The cornerstone for the new $350,000 building of the Cincinnati Orphan Asylum Home for Convalescent Children was laid on June 14 with many prominent persons present.

The ceremony was characterized by Dr. A. C. Bachmeyer, superintendent, General Hospital, and dean of the college of medicine, University of Cincinnati, as "the capstone of development of the department of pediatrics at the college of medicine." Doctor Bachmeyer said that in the past there had been a total lack of proper convalescent facilities for children, but that the new home in building and equipment would be the finest of its type in the United States.

Physicians of Allegheny County, Pa., Favored in Scholarship Award

Practicing physicians of Allegheny County, Pennsylvania, are to be given preference in the award of scholarship aid under the terms of the Oliver Rea Scholarship Fund, according to announcement made last week by the directors of the New York Post-Graduate Medical School and Hospital, New York City, which has this fund at its disposal.

The donor of the fund is a Pennsylvanian—Mrs. Edith Oliver Rea, Sewickley—and in the original deed of gift, she has specifically petitioned that other things being equal, priority in the scholarship awards be given physicians from her home county.

The fund is designed to promote advanced medical education and research in the United States, to stimulate and train teachers in medicine and surgery and, in other ways to increase efficiency in the practice of medicine and surgery. Special attention is to be paid to work in internal medicine, particularly in the study of diseases of unknown etiology.

Physiotherapy Congress to Meet in Liége in September

The fifth International Congress of Physiotherapy is to be held in Liége, Belgium, in September.

In the coming conference, the main question to be discussed is the relation of physiotherapy to the treatment of rheumatism and diseases of the central nervous system, upon which five speakers, one each from Holland, France, Denmark, Belgium and the United States, will lead the deliberations. The subject of teaching physiotherapy in universities also will be discussed.

Lexington, Ky., Hospital Receives $100,000 for New Annex

A gift of $100,000, made by an anonymous donor, will make possible a needed addition to the Good Samaritan Hospital, Lexington, Ky. The annex, as planned, will contain approximately fifty modern patient rooms, a spacious lobby, reception room, office space for the various department heads and storage space for the files of the hospital. It will give the hospital a capacity of more than 200 patients. Preliminary plans for the addition are understood to provide for a four-story building which will be the same height as the general hospital. Miss Lake Johnson is superintendent of the Good Samaritan Hospital.

Contract Awarded for Marine Hospital at Galveston, Tex.

The Department of the Treasury has announced that it has awarded a contract for construction of the proposed Marine Hospital at Galveston, Tex. The structure will cost $506,900.

The contract calls for completion of the hospital within 500 calendar days from the day the contractor receives notice to proceed, which will be given when the performance bond to be furnished by the contractor is approved.

The construction work consists of the main building, a residence for the medical officer in charge, quarters for the junior officers, quarters for the nurses, a garage, approaches and service lines. The main building will be three stories in height with ground dimensions of approximately 330 feet by 50 feet with a service wing extending in the rear approximately 152 feet. The other buildings are two stories in height. The type of construction is brick with limestone trim and slate and composition roofs.

Pennsylvania Hospital, Philadelphia, which is furnished throughout with the new and improved du Pont Tontine window shades and Tontine guaranteed rollers.

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News of the Month

Duke University Opens $4,000,000 Hospital and Medical Building

The new $4,000,000 hospital and medical school building at Duke University, Durham, N. C., was opened on July 1. The hospital will be the largest general hospital in the Carolinas, with a capacity of 400 beds. The medical school, which opens on October 1, is equipped to receive a maximum of 300 students.

The department of pediatrics on the first floor contains more than thirty rooms. In the sixteen-bed capacity wards are semiprivate cubicles, partitioned by stationary steel screens. On the third floor are surgical wards for both white men and Negroes, each in a different wing. The delivery rooms, nurseries, wards and recovery rooms are on the fourth floor. The hospital is four and six stories high.

New Health Institute Receives Gift of $100,000

Announcement of a gift of $100,000 to the recently created National Institute of Health by the Chemical Foundation, Incorporated, is made in correspondence presented for printing in the Congressional Record by Senator Ransdell of Louisiana.

The National Institute of Health was created by a bill passed this session which was sponsored by Senator Ransdell. The title of the bill reads, "An act to establish and operate a National Institute of Health, to create a system of fellowships in said institute and to authorize the Government to accept donations for use in ascertaining the cause, prevention and cure of disease affecting human beings, and for other purposes."

Central Structure of Newest Medical Center in New York Is Begun

The laying of the cornerstone for the new building of the New York Hospital took place on June 12, on the eve of the 160th year of the institution's founding. The new building, designed for "a life of not less than 100 years," will form the central structure of the new medical center which is now being constructed for the New York Hospital-Cornell Medical College Association. The cornerstone was laid by Edward W. Sheldon, president of the hospital's board of governors.

With its adjoining clinics for women, children and psychiatric patients, the new hospital will provide approximately 1,000 beds and, in addition, accommodations to treat 1,000 out-patients daily. It will have a staff of about 2,000 doctors, students, nurses and employees.

In planning the building for "a life of not less than 100 years," the architects have proceeded on the theory that the life of such a building is determined by its "veins." Many hospitals still of sound general construction, it is declared, have become obsolete because of the inadequacy and inaccessibility of the arteries that carry its water, heating, steam, electrical and gas lines. In the New York Hospital, all the "veins" are designed for double the immediate requirements and it will be possible to replace all service lines and recondition the building to meet the changing needs of the future.

The new building will be the third erected by the New York Hospital since its charter was granted in the year 1771.

Pennsylvania Spends Over $11,000,000 for Poor Relief Annually

The total cost of administering poor relief in Pennsylvania for 1928, the last year for which reports are complete, amounted to $11,320,368, according to a report of C. W. Parritt, statistician of the state department of welfare, and made public by Mrs. E. S. M. McCauley, state secretary of welfare.

The report shows that the cost of poor relief in the state has grown rapidly since 1921 when the total cost was $5,374,507. The number of inmates of almshouses in 1921 was 8,245 while in 1928 there were 11,506 inmates.

The per capita cost of maintaining an inmate in an almshouse in Pennsylvania for each day during the year 1928 was ninety-seven cents as compared with seventy-two cents in 1922, Mrs. McCauley stated.

Work Is Started on New Hospital in Cornwall, N. Y.

With the laying of the cornerstone on May 30, work was begun on the new sixty-bed Cornwall Hospital, Cornwall, N. Y., which is expected to be completed early in 1931.

The new hospital will stand on a site that is free from undesirable noises. It will have open surroundings that will permit plenty of fresh air. The hospital will be modern in its construction, equipment and furnishings.

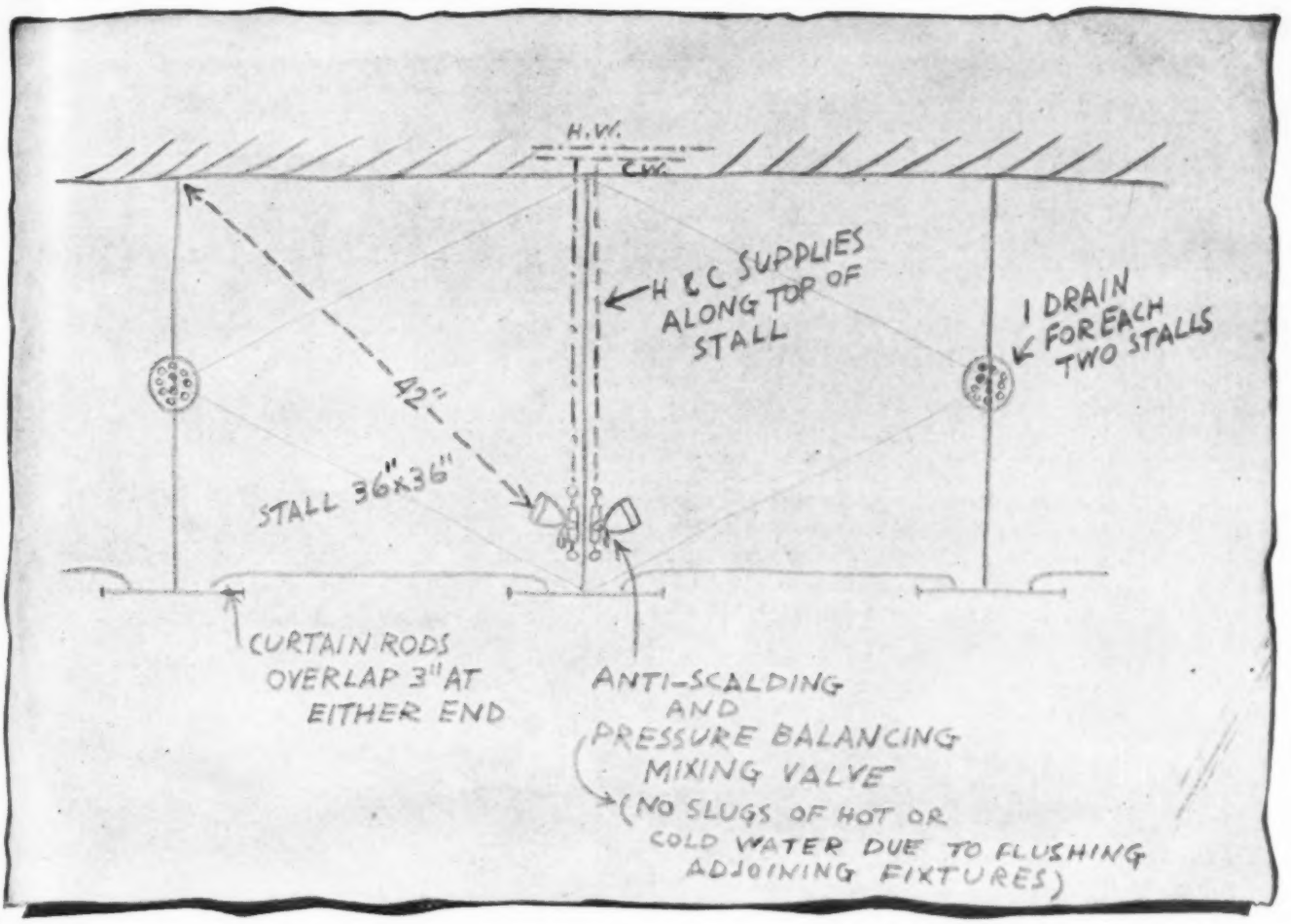
The medical board will be represented by all of the doctors of Cornwall, including those who live there for only a part of the year as well as those from the surrounding territory who would be interested in serving the hospital.

A. J. Mapes is the president of the board of trustees of Cornwall Hospital.

School Days Begin Again for These Nurses

Nurses at Passavant Hospital, Chicago, are going to college now with a view to getting their degrees along with other young women who are taking liberal arts or professional courses. A recent expansion of Northwestern University provides for college work and a college degree for nurses. The university's plan offers the course so that nurses may obtain a degree in advance of the R.N.

Plans are reported to be under way for raising an endowment for a nurses' training school to be built on McKinlock campus, near the hospital.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This Pencil Sketch Made 1,000 Men Cleaner and Happier

Industry everywhere is rapidly swinging to the modern common-sense idea that workers' cleanliness, happiness and health must be zealously guarded in the plant.

For just this reason a large eastern company decided upon a new factory shower bath installation. A Clow Soldier of Sanitation was called in.

His answer was this rough pencil sketch. The ultimate result is an installation that gives the factory's 1,000 men shower facilities that the finest homes cannot equal for sheer practicability.

The shower head is located in a corner to gain the maximum spray area in a minimum space.

Spray is directed against a wall instead of a flimsy door curtain.

Controls are located just inside the door to end reaching through an icy or scalding deluge to adjust water temperatures.

These are simple things. But they help to illustrate how the Clow Soldier of Sanitation does not come in to you merely to show pictures in a catalog. His job is to help you fight ill-health, discomfort, insanitation, pollution and disease.

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News of the Month

Varied Programs to Be Presented at New Orleans Convention

WHAT appears in the making as the best program that has ever been presented before a hospital convention is being prepared by the section chairmen and round table coordinators for the forthcoming meeting of the American Hospital Association to be held in New Orleans, October 20 to 24. This year, those attending will be treated to many innovations in programs, most of them running to informal debate with a variety of topics, which will be sure to please everyone no matter from what type or size of hospital they come. There are problems pertaining to small hospital management, departmental management, the relation of the hospital to the community, the relation of the hospital to both the patient and the doctor and many other important phases of hospital administration.

Dr. Bert W. Caldwell, executive secretary of the American Hospital Association, has worked unceasingly toward the perfection of both the program and the arrangements and in cooperation with Louis Bristow, superintendent, Louisiana Baptist Hospital, New Orleans, who is the chairman of the local arrangements committee, he has worked out several ideas that will add immeasurably to the pleasant visit of the delegates to this most distinctive city.

Among the features being planned is a demonstration of proper methods of storing films and the quick extinguishing of film fires. Plans are also well underway for a trustees' section at which there will be presented five famous speakers. This will be one of the highlights of the meeting.

There will be several informal entertainments among them an evening boat ride on the Mississippi River.

Representative Crowd Expected

Already word has been received from all parts of the country that ensures an excellent attendance at the New Orleans convention. Large delegations are coming from the Pacific Coast and all of the Southern states have signified their intention of being well represented.

This year's exhibit will be unique in several ways, according to officers of the Hospital Exhibitors' Association and all of the booths will be given over to educational as well as commercial showings.

The program of the American Protestant Hospital Association has been completed and shows much thought and care. The meetings of this association will be held at the Roosevelt Hotel and they will begin on October 17, lasting until the morning of October 20. President Luther Reynolds, superintendent, Seattle General Hospital, Seattle, and Executive Secretary Frank C. English have secured the cooperation of some of the best authorities in the hospital field and from the standpoint of practicability this program should draw a large and enthusiastic crowd.

Both the American Hospital Association program and the program of the American Protestant Hospital Association will be presented in the September issue of THE MODERN HOSPITAL in as complete form as is possible. This is being done so that it will be convenient for those attending both meetings to have the programs in detail well in advance of the meeting and in nearly final form.

The American Association of Hospital Social Workers will also present a program of much interest and value to hospital administrators and social workers.

American Institute of Architects Honors Doctor Goldwater

Dr. S. S. Goldwater, consultant, New York City, was elected to honorary membership in the American Institute of Architects at the sixty-third convention of the institute held in Washington, D. C.

Honorary membership is conferred by election upon an

individual who has rendered the profession of architecture signal and valuable service, and who has conspicuously upheld its aims.

Doctor Goldwater was presented with a certificate of election.

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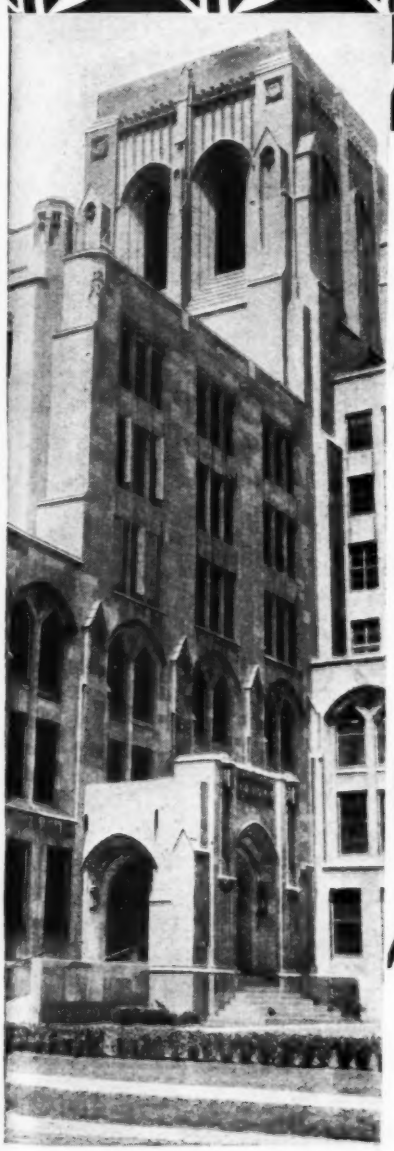

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Personals

DR. WILLIAM W. WRIGHT, assistant superintendent, Utica State Hospital, Utica, N. Y., for the last six years, has been elected superintendent of Pilgrim State Hospital, near Central Islip, L. I. DOCTOR WRIGHT entered upon the duties of his new position on July 1.

DR. RUSH E. CASTELAW, superintendent, Decatur and Macon County Hospital, Decatur, Ill., has resigned. DOCTOR CASTELAW has retired from the hospital field indefinitely because of ill health.

DR. HAROLD W. HERSEY, superintendent, Bridgeport Hospital, Bridgeport, Conn., has resigned to become head of the Springfield Hospital, Springfield, Mass. DOCTOR HERSEY succeeds JOHN C. GARDINER, who has resigned because of ill health. OLIVER J. BARTINE, New York, has been selected to fill the vacancy at Bridgeport Hospital.

DR. T. B. H. ANDERSON, in command of the United States Marine Hospital, Pittsburgh, has been named commander of the United States Marine Hospital, New Orleans, succeeding DR. W. C. RUCKER, who died suddenly on May 22.

E. L. JOHNSTONE has been named acting superintendent of the Woodbine Colony for Feeble-Minded Males, Woodbine, N. J., succeeding JOHN A. TINSLEY.

COL. DEANE C. HOWARD, superintendent, Garfield Memorial Hospital, Washington, D. C., has resigned.

DR. JAMES C. EGBERT, director of university extension, Columbia University, has been elected president of the newly established Long Island College of Medicine. DR. HENRY A. INGRAHAM, secretary, Methodist Episcopal Hospital, Brooklyn, has been elected chairman of the board of trustees.

BLENDA FRISK, Galesburg, Ill., formerly superintendent of hospitals in Rockford and Monmouth, Ill., has been selected to head Lutheran Hospital, Sioux City, Iowa, succeeding ESTHER T. JACKSON who has resigned. MISS JACKSON is studying at the University of Minnesota this summer.

DR. HARRY A. STECKEL, superintendent of the Newark State Hospital, Newark, N. J., has been named head of the new State Psychiatric Hospital, Syracuse, N. Y. The new hospital is expected to be ready for opening early in October. DOCTOR STECKEL, however, will assume his duties as director on July 1.

MADGE G. HAMNETTE has been appointed superintendent of the Children's Free Hospital, Louisville, Ky.

HATTIE SUE JONES, supervisor, Memorial Hospital, Danville, Va., for the last year, is superintendent of the new Anne Penn Memorial Hospital, Richmond, Va.

EVA A. GREGG has been appointed superintendent of Arequipa Sanatorium, Manor, Calif. MISS GREGG was formerly assistant superintendent of nurses, Oakland, Calif.

DR. FREDERIC W. SCHLUTZ has been named director of the Bobs Roberts Memorial Hospital for Children, Chicago. DOCTOR SCHLUTZ is also head of the department of pediatrics at the University of Chicago's south side clinics.

GEORGE A. LANG, AUGUSTUS FETTER and MRS. I. M. KANN, Kendallville, Ind., have been named on the board of control of Lakeside Hospital, Kendallville.

DR. ADAM EBERLE is the new superintendent of Seaview Hospital, Seaview, Staten Island, New York, succeeding DR. GEEZA KRAMER, who retired recently.

DR. WALTER C. REINEKING has been appointed superintendent of the recently opened Lake View Sanatorium, near Madison, Ohio. He was formerly superintendent, Grand View Hospital, Ironwood, Mich.

FREDERIC H. STRAWBRIDGE, JR., has been elected president of the board of trustees, Women's Homeopathic Hospital, Philadelphia. The hospital itself has been reorganized and is now dedicated to the hospitalization of families of moderate means.

JANET R. MCLELLAN, R.N., has been named superintendent of the King's Daughters Hospital, Temple, Tex.

SISTER REGINA CECILIA is the newly appointed superintendent of the Good Samaritan Hospital, Suffern, N. Y.

G. HARMON HARPER, R.N., has been appointed superintendent of the Jane M. Case Hospital, Delaware, Ohio.

DR. MARION S. REYNOLDS, medical superintendent, Children's Hospital, Columbus, Ohio, for the last ten years, has resigned.

LAURA REXROTH, assistant superintendent, Hershey Memorial Hospital, Muscatine, Iowa, since 1927, was recently named superintendent of the hospital.

GEORGE W. WILSON, superintendent, Hamot Hospital, Erie, Pa., has been named superintendent of Toledo Hospital, Toledo, Ohio, succeeding JOHN E. RANSOM who is now assistant director, Johns Hopkins Hospital, Baltimore.

JOHN C. DINSMORE, formerly assistant to the director, University of Chicago Clinics, has been appointed superintendent of the clinics, and CARL J. LONG has been named assistant superintendent and chief accountant.

EVA ELLEN JANSON is the new superintendent of Children's Hospital, Columbus, Ohio, succeeding DR. MARION S. REYNOLDS.

LINDEN OWENS, formerly of the Pennsylvania State Department of Property and Supplies, has been appointed superintendent in charge of administration, State Hospital for Crippled Children, Elizabethtown, Pa.

ISABELLE BYRNE, superintendent, Sloane Hospital for Women, New York City, has resigned to become superintendent of the Roosevelt Hospital of that city.

DR. EDWARD C. RUGE, Seattle, Wash., has been named superintendent of the Northern State Hospital for the Insane, Sedro-Woolley, Wash., succeeding DR. JAMES W. DOUGHTY.

DR. C. C. BURLINGAME is now in Montevideo, Uruguay, where, it is reported, he will collaborate in the establishment of a new medical center, to be patterned after the Columbia-Presbyterian Medical Center.

Broadening the Span of Middle Age....

THERE is an accentuated interest in medical circles in the diseases of old age. And it is likely that a more active attention will be given to geriatrics in the future.

One of the common symptoms of old age in the normal span of life is the frequency of "indigestion" due to hyperacidity. Food intoxications, due perhaps to improper habits of diet during youth, can be treated effectively with "Phillips' Milk of Magnesia." It not only is valuable as an antacid, but serves likewise as an eliminant of toxic wastes.

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NURSING AND THE HOSPITAL

Conducted by M. HELENA MCMILLAN, R.N.,
Director, School of Nursing, Presbyterian Hospital, Chicago

Educating the Student Nurse for Her Future Responsibilities*

By W. C. RAPPLEYE, M.D.
Director of Study, Commission on Medical Education, New Haven, Conn.

WHAT are the more general relationships of nursing education to some of the current problems of the medical, the hospital and the nursing professions? In discussing this topic, let us examine briefly some of the problems with which nursing must deal. This will help us to understand the educational methods and content of the nursing course and the provisions necessary to carry out the program of nurse training. We should be interested not alone in present problems but also in the indications of what nursing responsibilities are likely to be in the future and for which the current training courses should be preparing nursing students.

Nursing in a Modern Health Service

The remarkable increase in medical knowledge during recent years has added greatly to what the nurse is expected to know and to what she is expected to do. Knowledge of disease has probably increased more rapidly in the last forty years than in the preceding four thousand years. The germ theory of disease revolutionized medical thinking and not only made modern surgery possible but it has supplied us with the basis for preventing and treating many of the communicable diseases. Chemistry has given us new knowledge of nutrition, growth and vitamins and a fuller understanding of human physiology. The x-ray and radiant energy are opening entirely new fields in diagnosis and treatment. Important discoveries in many other fields have helped to increase the usefulness as well as the complexity of modern medical care and have had their inevitable influence upon the functions of nursing in the many phases of a modern health service.

There are other important aspects of this problem that need only be suggested. The public has become health conscious. It is eager to obtain the benefits that modern medical, hospital and nursing services can provide and it is impatient that these benefits cannot be made available to everyone immediately and at a low cost. Business men, economists, sociologists journalists and the lay public have been contributing their opinions and criticisms of medical, nursing and hospital practices. Judging from the volume and the character of some of the discussion, one would suppose that we are soon going to witness a radical change in methods of medical care.

The greatest health problem to-day is the adequate distribution of modern medical, hospital and nursing services to the entire population at a reasonable cost. Knowledge of the diagnosis, treatment and prevention of disease is far in advance of its application to individual and community needs. It is quite clear that features of finance, problems of organization and interests of the public must be carefully considered in order to secure an effective application of scientific knowledge to the needs of the individual. But a thoughtful examination of the situation shows that the essential character of the problem calls for trained professional and technical personnel. The quality, interpretation and correlation of scientific knowledge are dependent upon trained personnel who know the significance of that knowledge and how to use it. Only on that assumption may any high degree of success be expected in dealing with this problem.

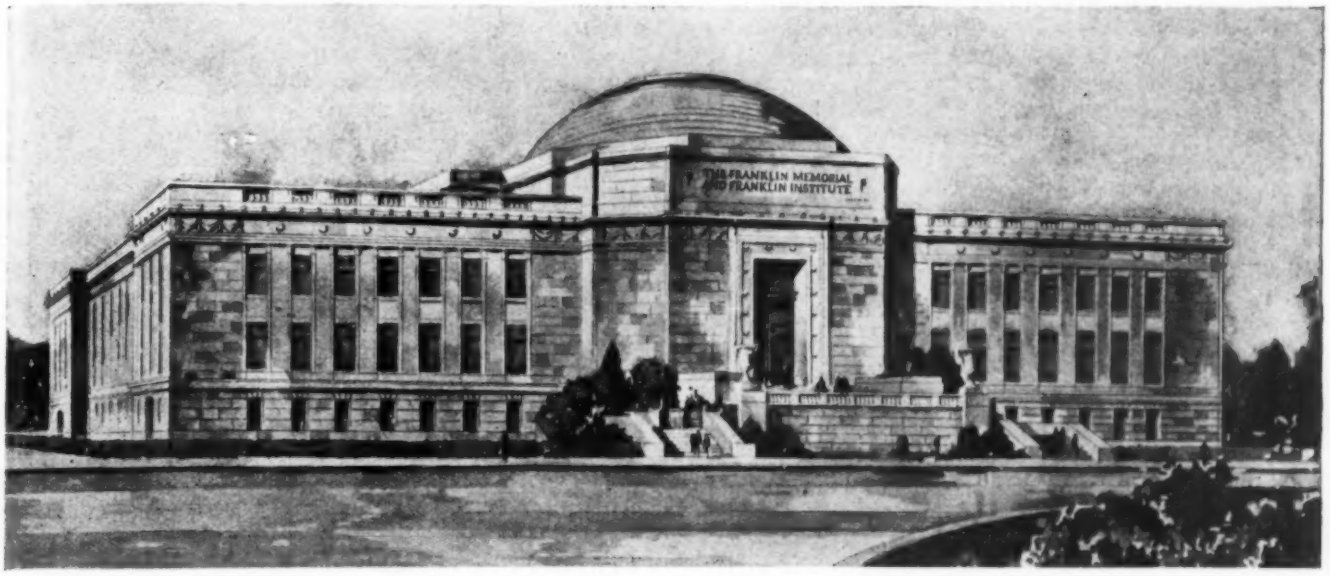
It is natural that the cost of medical and nursing care should be widely discussed but it is quite clear that there has been some misunderstanding of what that cost represents and what essential service is provided. The total cost of all forms of medical care is somewhat under three billion dollars a year, a little less than 3 per cent of our national income. This is roughly divided as follows: physicians, 25 per cent; hospitals, 25 per cent; patent medicines and drugs, 25 per cent; nursing, 15 to 20 per cent; dentists and various other costs, 5 to 10 per cent.

The Hospital Center and Its Function

This is a large sum but it must be borne in mind that our annual expenditures for passenger automobiles, tobacco, candy, amusements, soft drinks, jewelry, toys, cosmetics and similar articles are over ten billion dollars, made largely by persons of moderate means for whom the cost of medical care is most pressing. Furthermore, there is great unevenness in illness and the disability it

*Address given before the Institute for Lay Boards of Hospitals and Public Health Nursing Organizations, Chicago.

Philadelphia Raises $5,000,000



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may produce, and figures of totals and averages cannot give an adequate picture of the situation. There is also a wide variation in the quality of medical, hospital and nursing care and a number of defects in the professional services that need correction. But it is clear that the total cost of medical services of all kinds, while large, is not alarming when compared with other expenditures, even for nonessentials.

The problem of securing better medical services for the rural districts is another question that has been widely discussed. The concentration of physicians and nurses in the cities has arisen largely because of economic conditions, better facilities for practice in the cities and a more congenial professional and social life. The development of modern facilities for practice in smaller communities—hospitals, laboratories, nursing, ambulance services, visiting nursing—has already proved to be the solution of this problem in many areas in the country.

The hospital center, developed for the needs of a unit of population sufficiently large to support it, is the normal method of securing adequate medical and nursing personnel for the community. There is a definite trend toward correcting the unsatisfactory health services in the rural districts and a sound solution will be found if we do not resort to programs that are too artificial.

Another feature to be considered is that of the prevention of disease. We know that a large proportion of diseases and consequent disability and economic loss are preventable. Physical and mental health is our greatest national asset. It is quite clear that ill health and its effects are among the major causes of national waste. The prosperity and happiness of the population are largely dependent upon physical and mental vigor. Sound health advice, periodic medical examinations, the proper direction of the mental and physical development of children, clinics for well babies and preschool children, school and industrial nursing and medical services and the early recognition and treatment of minor complaints and the beginnings of disease need only be mentioned to suggest the great contributions that prevention can make to our national economy and happiness in which nursing has an important part to play.

Nurse's Duties Are Ever Changing

It is clear that many of the questions of nursing education are intimately associated with broad changes now taking place in medical and nursing practice. The increasing use of the hospital for the study of obscure illnesses, for children's disorders, for chronic diseases, for mental disorders, for obstetrics, for contagious diseases, for tuberculosis and for malignant diseases, as well as for acute surgical and medical conditions, is having a distinct influence on nursing practice. An increasing number of serious illnesses of all kinds are being cared for in hospitals rather than in the home. Visiting, public health, industrial and school nursing need only be mentioned to suggest other changes in the former conception of the duties of a nurse. Mental hygiene, social service, administrative and teaching work, dietetics, physical therapy, laboratory and other special forms of office and institutional responsibilities can be added to the variety of opportunities for which a sound course in nursing can provide the initial basic preparation.

These several generalizations are made to indicate only a few of the wide ramifications of medical and nursing services and to suggest the likelihood that in the future many of these services will be extended further. All of these trends indicate greater responsibilities and a widening field of usefulness for nurses, and require a type of resourcefulness and a knowledge of mental and physical health not ordinarily considered in our usual idea of nurse training.

It does not mean that there is any less requirement for skill in nursing care, in observing or reporting symptoms or in following the orders of physicians, the three most common functions of a nurse, or that all nurses should be fully trained in all these special fields, an obvious impossibility. But it does seem to suggest that in the future, training for the nursing profession will be on a broader and somewhat different basis. It is quite apparent that the development of nursing personnel to meet these larger responsibilities and opportunities can only be brought about on a basis that is essentially educational in character.

Nursing and Medicine Contrasted

Before entering into a discussion of the problems of nurse training itself, let us review briefly what has been happening in the field of nursing. In 1900 there were 432 schools of nursing in this country; now there are about 2,200. For the sake of contrast, it may be pointed out that the number of medical schools has declined from 160 to the present sixty-six approved four-year schools. The nurse graduates have increased from 3,500 to about 18,000 a year in the same period, whereas about 800 fewer doctors are graduated now than in 1900, although we still have the highest number of physicians to the population of any country in the world. The number of graduate nurses has risen from 12,000 to about 200,000 and there is quite evidently an oversupply of nurses for the ordinary profession load.

Probably the largest factor in this growth has been the rapid development of hospitals, about 5,000 new hospitals having been built in the last thirty years. It was not possible, of course, to obtain sufficient numbers of trained nurses to provide nursing care in these new institutions and the device of training schools was resorted to as the means of securing the necessary nursing services. It was a cheap method of obtaining labor, but, now that the shortage of nurses has been corrected, the expedient is no longer necessary.

This situation reminds one of the overproduction of physicians that occurred at the beginning of the present century. Until recently provisions did not exist in this country for the training of a sufficient number of physicians for the needs of the country. The sparsity of the population, the great distances and the lack of facilities for communication and transportation required an unusual number of physicians to meet the demands for medical care. We had in this country only a few universities that were able to provide a thorough training, such as existed in Germany or Switzerland. Few hospitals were able to assume the burden of training doctors, as in England or France. The only device was that of apprenticeship training and for a period it was a large factor in the production of physicians.

Later, groups of doctors organized classes, constituted themselves into faculties, obtained charters and proceeded to teach medicine. In response to the public need and the ease with which a medical education could be secured, the student group grew so rapidly that by 1904 we had 162 medical schools, one-half of the world's supply, and a student group that numbered over 28,000. Through the efforts of the American Medical Association the number of medical schools has been reduced to sixty-six approved four-year schools and the number of graduates declined from 5,700 to about 2,500 in 1922. It has recovered to about 4,400 at the present time.

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The problem of nursing education must be considered in relation to other forms of education with which it has contact; it cannot be looked upon as an isolated field of special education alone. During the last few years, there has been a distinct increase in the proportion of student nurses who have had at least four years of high school study. The figure is now about 75 per cent as against 50 per cent ten years ago. Ninety per cent of the nurses' training schools have raised their entrance requirements during the last ten years. It is apparent that there has been a steady elevation of educational standards, although it would not have been easy to elevate the standards and secure the numbers of student nurses indicated earlier if it had not been for the fact that enrolment in secondary schools has been increasing twelve times as rapidly as the population. Furthermore, there are now three times as many students in institutions of higher education than there were in the secondary schools of thirty-five years ago.

Gratifying as has been the rise in the standards of pre-nursing education, the elevation of requirements for admission to schools of nursing probably has lagged behind changes in other fields of education. Most nurse training can now be based on graduation from high school and should make educational adaptations in the training itself relatively more easy than has been the case in the past.

I shall not attempt to discuss the details of nursing education, even if I were competent to do so. There are, however, a few principles of education that are being emphasized generally and to which I may refer. Educators are coming to recognize that all true education is self-education and that we must shift the emphasis from teaching by the faculty to learning by the student. That means that the student must take greater responsibility for her own training. We should abandon many of our present methods of spoon feeding. Even a cursory statement of the larger responsibilities of nursing, which I have only tried to suggest, would seem to require a nurse who is well informed, resourceful and well trained if she is to be valuable in the program of medical care. A trained mind must be self-trained, since no amount of outside supervision can ever accomplish that result. If this is true, we shall see an extension of sound educational methods into the training of nurses comparable to the rapid changes in educational methods in medicine at the moment.

Correcting Certain Teaching Defects

To cite only one illustration, may I comment on the usual broken ward experience of the student nurse in contrast with the block system of continuous bedside instruction which will allow a student to obtain a complete, continuous experience with one small group of patients, not unlike the clinical clerk assignments of medical students in the English hospitals? A great deal of present teaching is fragmentary and unrelated and violates the most elementary laws of learning. Slight rearrangements of teaching schedules can correct this type of defect easily and give the student a consecutive, correlated experience that can probably be done better in even a shorter period.

There are many who believe, not altogether without some justification, however, that education means theory. Nurse training in the better schools has always emphasized an important educational principle of dealing with realities and in emphasizing the value of repetition. The old motto, "Repetition is the parent of learning," is not altogether unsound. No scheme of training which removes that essential core of experience can be sound. But there is no reason why a simple arrangement to introduce an educational emphasis into that experience should not increase its effectiveness.

Enthusiasts for the theoretical training of nurses should keep clearly in mind the essential character of the usual nursing problem, in dealing with which wide experience in handling different kinds of patients is very important. There has been some tendency of late to discuss the nursing of diseases instead of patients. Medical training has made the same error and we now see the beginnings of a distinct shift back to consideration of the patient as a whole rather than to a study of his separate organs, his diseases or the technical procedures needed for the diagnosis or treatment of those diseases.

Aims of the Basic Course

The basic course should aim to produce a competent general nurse whose experience and preparation should equip her to go either into regular bedside nursing, home or institutional, or into advanced training for one of the special fields of public health, school, industrial or institutional work. The latter group would ordinarily represent about 10 or 15 per cent of the students who have the aptitude, interest and ability to go into advanced work.

It is quite apparent that an effort to train nurses more thoroughly and effectively will require some modifications in present arrangements for the care of patients, modifications that need not prove too difficult or costly. The first requirement is the emphasis upon education and not experience alone; the latter is not enough. This can be done only by relieving the student at intervals from routine work, and particularly from nonnursing functions, by the provision of graduate nurses on floor duty and by maid services and other provisions for nonnursing duties. The student should then obtain a supervised experience and practical education on patients, which is not the same as unsupervised nursing experience or theoretical laboratory work, that should aim particularly to develop sound habits and methods of work.

It is equally clear that the provision of proper instruction, supervision and relief personnel on the wards will require financial support from sources independent of those designated for the care of patients. The educational features of the program should be definitely identified as such and properly supported as is any other educational project.

In this brief discussion I have tried to throw into relief a few of the larger problems with which nursing, hospitals and medicine are vitally concerned and which these groups must solve. They can be solved only by trained personnel, and the nursing, hospital and medical professions have the responsibility for the recruiting and training of that personnel.

We need in nursing, as in medicine, a fuller appreciation of those larger responsibilities, a new viewpoint and new methods in our professional education that will provide our students with a broad, sound basic training and a permanent intellectual equipment that will allow them to keep abreast of future changes in nursing and medical needs. In nursing, that means a fuller conception of the responsibilities and the needs of nursing services on the part of hospitals, the medical profession and nurses themselves, a new viewpoint regarding the training of nursing personnel, an educational program based upon broad, basic principles, leadership and funds as well as an active cooperation of the hospital and medical professions in helping to make nursing an even more effective instrument of public service than it has been in the past.

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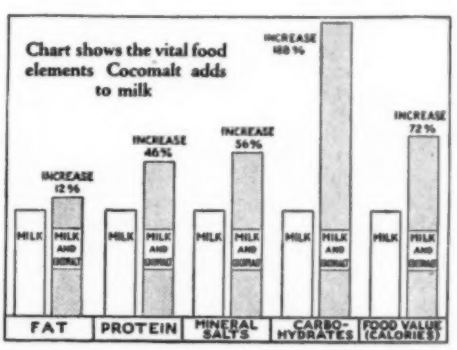

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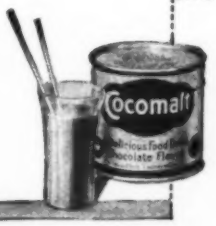

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DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by ANNA E. BOLLER, Central Free Dispensary at Rush Medical College, Chicago

What the College Expects of the Hospital in Dietetic Training*

By ELIZABETH WHITTAKER
Assistant Professor of Home Economics, Michigan State College, East Lansing, Mich.

IN THE training of young women for the field of hospital dietetics, both the college and hospital have a specific duty to perform. Frequently these duties overlap. There may even be repetition of some of the subject matter. The presentation, however, may be so different that the student feels she is learning something new.

Briefly, the college should provide the theoretical training, the general foundation and the background for the future work. The hospital should continue with the specific theory, and should provide the place and opportunity for its practice. The students then are given a chance to learn how to work with sick persons and how to cooperate with normal individuals or groups.

Before the college can discuss the type of training it expects the hospital to give, it should state its aims and its methods for attaining them. It is true, that colleges differ in the type of training they offer, but those that give a B.S. or B.A. degree with a well balanced training in home economics have certain standards to which they should rigidly adhere. In the first place, the faculty should be composed of educators who have not only an excellent training in the subjects they are teaching but who have had some experience in the practice of their profession. For instance, instructors who are teaching diet therapy should have had some actual hospital experience. Thus, they will know, in general, the types of problems the students will meet and can then help them to forestall some of their difficulties.

What the Course Should Offer

In addition to training and experience, the members of the faculty should be able to present the subject matter in such a way that the students may grasp it. How often is a brilliant research expert put into an instructor's position in which he is a comparative failure. In order to be able to teach a subject adequately, the instructor should appreciate the student's problems and try to meet them.

The curriculum of a college with a recognized school of home economics should be broad enough for the student to select courses that give a cultural as well as a scientific background for the first two years at least, and preferably for all four. The scientific training for the first two years should be as general as possible, becoming specific in the last two when the student begins to develop an interest in a definite field. A further requirement of the college is that the staff and equipment shall be adequate for teaching the subjects offered, since this reduces the amount of trying adjustments that the students have to make after leaving college.

Meeting the Needs of the Students

Even with the best staff and equipment, however, every school has its limitations. Frequently these may be due to geographic position, as in the case of a school in a small community. Such a school cannot train its students in the mechanics of feeding thousands of persons daily because it cannot get so many persons in a group. A girl coming from such an institution has difficulty in competing with girls from large centers when she enters her hospital training.

The time factor is one of the most important limitations in the college training as well as in the hospital. There are so many subjects that should be mastered and so short a time in which to learn the material. Although one of the newer theories of education advances the idea that all subjects should be made interesting to the student, this is not always possible. Of course, the normal reaction is to work harder on a subject that is interesting, but there are elementary abstract theories that must be learned and combined before a concrete application can be made. Until this application is possible the subject may be uninspiring, but it is not always possible to work from the concrete to the abstract.

Furthermore, because of this time factor, the student may not have developed the type of standards the college hopes to instill before she graduates. All students who are going into nutrition work should have definite standards of food preparation. They should appreciate, for instance, a perfect broiled steak, a perfect cake or a

*This is the first of a series of articles dealing with the subject of the student dietitian.

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Hospital Silverware

by GORHAM

THE equipment which Gorham manufactures for hospital trays is temptingly attractive to the patient, practical for the hospital to use and store, economical in upkeep, and withstands years of hard wear.

On the above tray: In the center front is a COMBINATION BOWL which has many different uses: With the 3-prong insert (as illustrated) to hold orange-juice glass; without the insert, to serve fruit; with its special cover, to serve cereals or soups; with its collar, to hold china or glass liner, to serve bouillon, sea foods or fruit cocktail, eggs, ices, etc.

Directly behind the COMBINATION BOWL is the Gorham special easily-filled HOT WATER PLATE. Made in two sizes —8-inch and 9¾-inch with special covers for both sizes.

The COFFEE POT illustrated saves hospitals storage space, as the sunken cover feature permits stacking. The accompanying CREAM PITCHER takes a standard paper cream cap.

The sanitary SUGAR SHAKER and ICE CREAM STAND and the remaining articles —SALT AND PEPPER SHAKERS, BREAD AND BUTTER PLATES (5½-inch diameter), NAPKIN RING, and the FLATWARE are typical of Gorham quality.

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perfect custard, and should know how to prepare them. But each student has probably had only one lesson in broiling meat, and her particular steak may have been a failure. Class time does not allow for repetition until the student can produce a perfect article. Therefore, unless a standard is presented to the class and discussed, the students may not develop one.

The college that is interested in the development of its students—and what good college is not?—wishes to place them in positions which it feels they can fill adequately. So, after a girl has finished a four-year course in home economics with a major in nutrition and wants to enter a hospital for graduate work in dietetics, the college should be careful in guiding her into the type of institution that seems to satisfy her requirements and talents. If she is a girl who has shown ability in food economics, and tea room or lunch room management and has been able to work congenially with other students, she would probably be successful in a large hospital where she could spend more time and gain more experience in administration. On the other hand, if she is interested in the chemistry of food and in treating abnormal conditions, she might be more successful in an institution where a larger number of therapeutic diets were prepared. If she seems to be overwhelmed by crowds she should be recommended to smaller institutions.

Hospitals, just as colleges, meet the needs for which they are established. A twenty-five bed hospital cannot present large problems of administration such as one meets in a 500 or 1,000-bed institution. The problems may be just as vital and acute, but for the student who wishes training in administration in a large group there is not the opportunity for study and practice that is available in the smaller.

So the college wishes to know the size and type of hospital to which it is sending the students, because it wants the student to be as successful as possible in the institution that finally accepts her. It is poor practice both on the part of the college and of the hospital not to know the general type of training that is given in institutions from which students are received and into which graduate students are entering. When either or both groups are ignorant of the aims of the other, serious misunderstandings may arise that prevent further cooperation.

A Well Trained Staff Is Essential

If the college has had well trained instructors on its staff, it expects as much from the hospitals that are receiving its students. It wants its girls to continue their theoretical training, and it should be careful to recommend its students to hospitals that have medical staffs interested in teaching as well as in treating disease. These instructors should have a thorough training in theory and practice in the subject they are teaching. And of course, the college expects the hospital to use its cases and equipment to illustrate the problems that are presented. This is a specific place in which the hospital has a distinct advantage over the college that does not maintain a clinical hospital.

The college expects its students to enter hospitals that maintain an adequate and competent nursing service, and in which there is cooperation between the nursing and nutrition staff. In practically any hospital the student may enter after she has finished her training, she will have to work with staff and student nurses. She cannot learn to make this contact in college, so the hospital must teach her how to make it.

Last but not least in importance in the discussion of the hospital staff is the nutrition group. All other things being equal, the college expects its students to enter hospitals giving courses approved by the American Dietetic Association. This, among other things, means that there are a sufficient number of persons on the nutrition staff and that the members have an adequate training for the type of work they are doing.

While the hospital should continue the theoretical training of the student the most emphasis should be placed on the practical side, and instruction should be more or less individual. Probably one of the most important functions of the hospital in the development of the student dietitian is that of teaching her to work with people. She may never have had to come in such close contact with individuals or groups it is necessary for her to please. In fact, so far as her undergraduate work was concerned, her record depended on her ability to master theory, and did not depend so much on her personal attributes. But in the hospital she has to learn to adjust herself to her surroundings and make her personality as pleasing as possible.

Helping the Student to Find Herself

A new phase of the subject the hospital must teach is the method of working with sick persons. A few students have an inherent talent for dealing with abnormal people, a large majority can learn to do so, but some are absolutely deficient in this respect and have no inclination to develop this trait. The latter group should not attempt to become therapeutic dietitians. In recommending students to hospitals, the college can only guess at their ability to develop these characteristics. Some girls fail to make a favorable impression because they are too retiring in disposition, but occasionally a few hard problems to solve will produce surprisingly gratifying results.

As the student progresses in her training she should develop ease and graciousness in her contact with her co-workers and patients. If she does not, the instructors in the hospital should try to find out where the difficulty lies and if possible overcome it. If it is a personal trait that the student is unable or unwilling to control, she should be discouraged from attempting further hospital work. But the college should not always be blamed for recommending such a girl for student dietetic training, because in the small amount of individual administration that she has to do in her undergraduate work, there is frequently little or no basis for judging whether or not she will later develop along such lines.

The college hopes that the hospital will cooperate in the training of the students to the extent of sending back reports on the progress of each individual. This gives the undergraduate institution a chance to check the content of its courses in relation to what the students are supposed to know when they start their practical work, and to ascertain whether the teaching methods in the college are such that the student has really learned the material presented.

Schools that are attempting to develop and hold a reputation for good undergraduate work are doing everything they can to make their nutrition courses as comprehensive as possible. They want their students to start out with a good store of fundamental knowledge. Then, when the individual enters a hospital for further training, they expect that institution to maintain the same standards of scholastic endeavor and to supply material and equipment for practical training that will give the student as well balanced and complete an education as possible.

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HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by C. W. MUNGER, M.D., Director, Grasslands Hospital, Valhalla, N. Y.

Where Mechanical Equipment Is Completely Provided

By COOLIDGE, SHEPLEY, BULFINCH and ABBOTT
Architects, Boston

IN A building the size of the Baker Memorial, described on page 55, there are numerous important points that require a separate description. Chief of these is the mechanical equipment.

The electrical service of the Baker Memorial is underground and is supplied by the local utilities company through three direct current feeders and one high tension alternating current feeder. The high tension cable is a direct line from the substation and provides the alternating current for the x-ray section.

The general lighting is designed to avoid glare by the use of semi-indirect fixtures and shades. The patients' rooms are provided with two intensity light fixtures, the brilliant light being for normal lighting and the other light for night lighting, which is of such a low intensity that the patient is not disturbed. The corridors are also provided with night lighting in a similar manner.

Complete Electrical Service in Every Room

At the head of each bed are a nurses' calling switch, a duplex receptacle, a radio head set and a telephone. The nurses' calling switch, when operated by the patient, lights a bulb at the head of the bed, one over the door in the corridor, one at the nurses' station and one in the floor kitchen and utility rooms. The last three mentioned stations have three lights, one for each corridor. When the nurse steps into the corridor she is able to discover the room that is calling by the light over the door. She must go to the patient's bed before the signal can be turned off. The duplex receptacle provides for any bedside service that is required by the doctor or the nurse. The radio set provides a choice of two programs through a selector switch. The telephone may be connected at any bedside requiring this service. In addition to the signal system, a lamp and switch are placed at each door to a patient's room. If doctors or nurses turn this switch when they enter a room a ready means of finding them is provided.

The cardiac galvanometer is in another building with wiring provided in this building so that a graph may be made of any patient without moving the bed.

Outlets are provided that permit the use of a portable x-ray at any bedside.

A doctors' paging system of the talking type is provided at the nurses' station on each floor, and standard time is announced by an electric time system.

The plumbing system of any hospital is one of the greatest problems. Here we have equipment that must be placed where it provides the service required while at the same time it is connected into one system by numerous lines of pipe which frequently attain a size of six or eight inches and which cannot be bent around into partitions and floors like an electric conduit since they must be accessible for repairs and service.

The problem of a sufficient water supply at all hours for domestic service and fire protection has been solved by the installation of a duplex supply obtained from separate street mains and cross connected so that either is available.

The problem of maintaining pressure in a high building has been met by dividing the building horizontally into two zones known as the high zone and the low zone. The low zone, extending up to and including the sixth floor, is supplied direct from the city water mains. The high zone is the portion above the sixth story and the supply pressure for this portion is boosted up from city pressure by means of centrifugal pumps, pneumatic tanks and air compressors so that full pressure is obtainable even at the highest fixture. Duplicate pumps that are automatic in action are supplied. They are designed so that the alternating use of either pump is accomplished.

The fire standpipe supply is also in duplicate, being supplied by the booster system within the building as well as by the fire department's high pressure system without.

Many Fixtures Specially Designed

The fixtures were carefully selected. When necessary, special brasswork and fixtures were designed to suit the individual requirements of the various departments.

The waste from kitchen fixtures is taken through a grease extractor before it enters the sewer.

The basement fixtures, being so near the street sewer level, are handled through a sewage ejector which not only provides excellent service for the basement fixtures but which removes the possibility of any flooding of sewers into the basement.

The heating and ventilating system provides heat, ven-

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Peach Puree with Cream of Wheat

2 cups cooked Cream of Wheat
½ cup sugar
Salt
½ cup peach puree
Sliced peaches
Maraschino cherries

Add Cream of Wheat, sugar and salt to the peach puree. Line a mold with sliced peaches and pour in the mixture. Serve with whipped cream and maraschino cherries.

Summer heat wears heavily on patients lying listless in hospital beds. It's no easy task to keep spirits up when sheets are limp and pillows hot.

When mealtime comes it takes all the tact and ingenuity nurses and dietitians can muster, to coax feeble appetites back to their normal state. So, wise is the dietitian who plans this tempting dish for supper. The first glimpse of its bright red cherry perched on top the whipped cream makes the most disheartened patient sit up and take new interest. So cool and refreshing—just the kind of dish one eats at home on a sultry summer night.

The cereal base, encircled with chilled slices of delicious peaches, is the dietitian's standby—Cream of Wheat. Such a combination is rich in food values. Cream of Wheat with its high carbohydrate content provides nourishment without taxing weakened digestive systems.

Many attractive and nourishing dishes can be prepared when Cream of Wheat is used as a base. And the cost is very little. There are forty servings at less than one cent each. The package itself is triple-wrapped and sealed.

Tempting Cream of Wheat dishes will solve the dessert problem when dispositions grow ragged in hot weather.

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tilation and steam for main kitchen cooking and sterilizers.

The heating is by a direct system of radiation with the radiators hung on the wall entirely free of the floor. The ventilation is by means of sixteen motor driven exhaust fans that thoroughly ventilate the kitchens, the nurses' serving room, the x-ray room, the floor kitchens, the toilets, the utility rooms, the sterilizing rooms, the operating rooms and all of the bedrooms for two or more patients. The cooking apparatus and sterilizers are supplied by a system entirely separate from the heating, which is maintained throughout the year.

On the maternity floor is a nursery for premature babies in which the proper conditions of temperature are maintained automatically.

Refrigeration is obtained by means of circulating brine to ice boxes and to the drinking water tanks. An ice plant in the basement produces the ice that is required.

Sterilization throughout the utility rooms and the operating floor is by steam sterilizers.

The kitchen equipment was all built especially for this hospital, much of it being especially designed. Where practicable all the working surfaces are of monel metal.

A Small Superheater for the Hospital Laboratory

Announcement is made of a new device for the hospital laboratory—a small and compact appliance that will superheat a stream of steam or any other gas needed for analytical work. It will also heat a stream of water or other liquids passed through it, to a desired temperature.

The superheater is useful in any of the many laboratory operations that involve steam distillations, and also as a preheater of air or oxygen in oxygenations, or hydrogen in hydrogenations. It may be packed in ice, or immersed in cold water, or used as a cooler for gases or liquids.

The uses of the superheater must be confined to those for which copper and brass are suited, since it is a solid brass casting, the center of which is machined to form passageways parallel to and at right angles to the flow. A well is provided so that one can insert a thermometer and observe, and control, the temperature of the heater. This thermometer well does not extend into the inner chamber.

New Model Dry Tumbler Is Announced

The development of a new dry tumbler has recently been announced. Officials of the company that is making the new tumbler say that the success of a larger model, embodying the updraft principle, has created a demand for a similar tumbler that would incorporate the same basic design and construction, and that it was this demand that led to the development of the new tumbler, a thirty-six-inch size.

The new model is provided with a suction fan at the top of the machine. This fan draws the heated air through the clothes in the cylinder instead of forcing the air up from the bottom of the tumbler in the customary manner. The advantage claimed for this system is that the clothes have a tendency to float on the rising current of air, which more nearly duplicates the ideal outdoor drying conditions when clothes are hung on the line. The tumbler is provided with a perforated plate cylinder, which is said to be particularly easy on the clothes. At-

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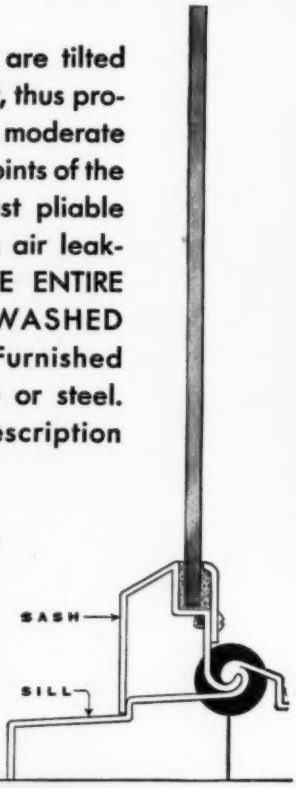

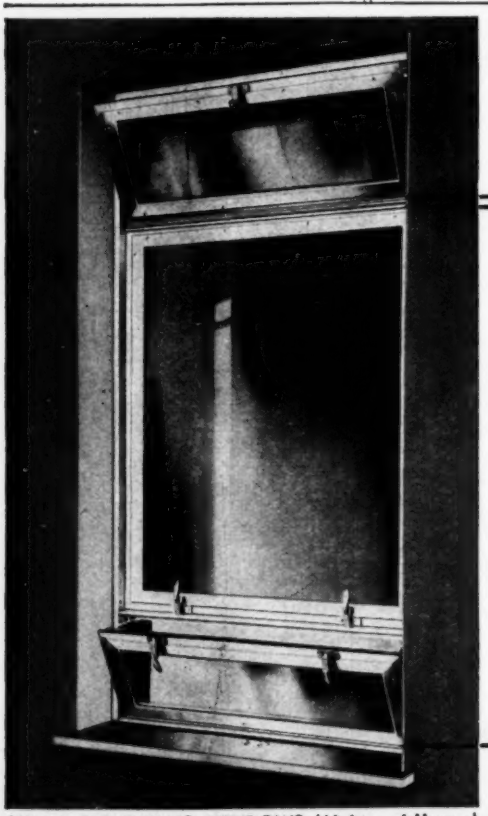

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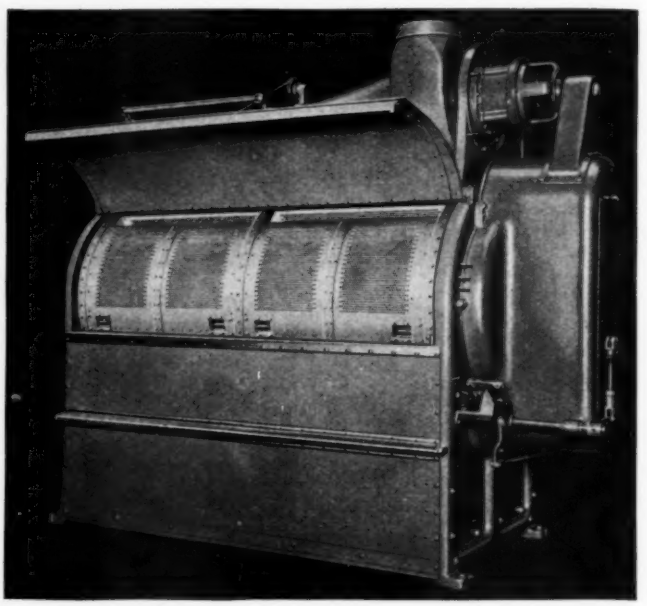
tention is called by the manufacturers to the fact that no lint trap is required, and that lint troubles are further reduced by the fact that air is circulated through the cylinder only once.

Special emphasis is also placed on the double pipe steam coils, a construction that seeks to eliminate contraction and expansion strains as well as the objectionable air binding which cuts heating efficiency. The operation of the cylinder forward or reverse, stopping and inching



is controlled by a single lever. A special safety feature is found in the fact that the machine cannot be started while the doors are open. Neither can the doors be opened while the machine is running. Moreover, spotting of the cylinder requires the use of both hands.

A quality machine of this size will undoubtedly meet with much favor in a large number of laundries. The manufacturers have prepared an advance bulletin covering detailed specifications for those who are interested in the machine.

A Vertical File for the Storage of X-Ray Films

A vertical file for the storage of x-ray films is among the newest pieces of hospital equipment to be placed on the market. It is believed that this file will meet the demands of practically every hospital. It is also built for office convenience.

This unit, the manufacturers point out, promises to be the solution for the temporary storage of active films in the office or in the x-ray room, since it is convenient and easy of access at all time. It reduces the quantity that is exposed to fire hazard and allows the fumes to escape from the container and be carried outside without danger to the occupants of the office.

The file is supplied with nine containers of the regulation size, 18¼ inches long, 15½ inches high and 4 inches wide inside, with a capacity for more than 200 films in envelopes in each container. A label holder and handle are fastened to the front. The overall measurements are 70 inches high, 20 inches wide and 21¼ inches deep. The net weight is 226 pounds. It is equipped with a vent pipe, and a sprinkler head is installed in the top.

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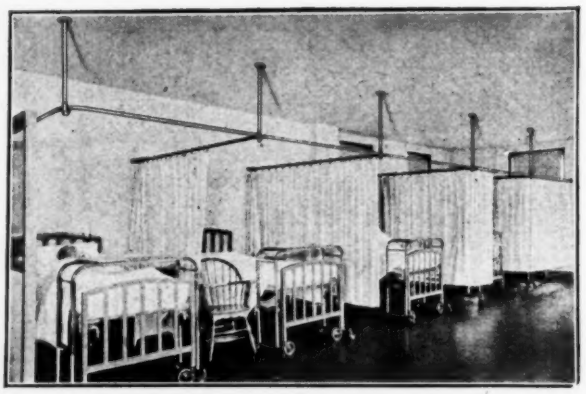

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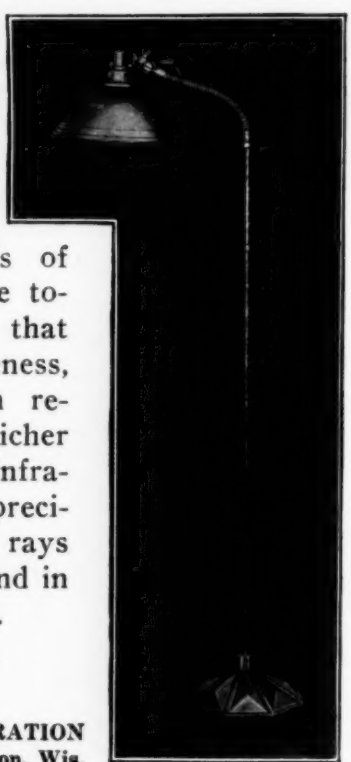

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By NEAL R. JOHNSON, Purchasing Agent,
Johns Hopkins Hospital, Baltimore

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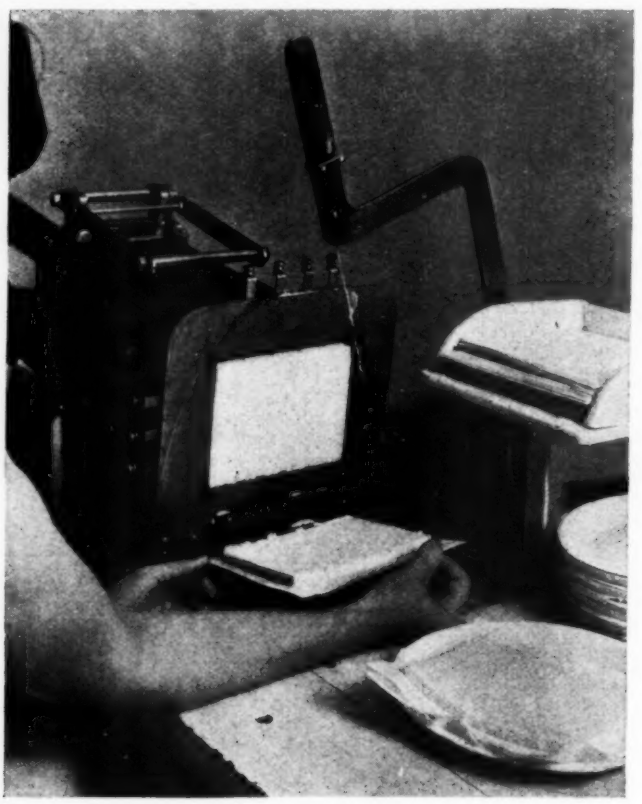
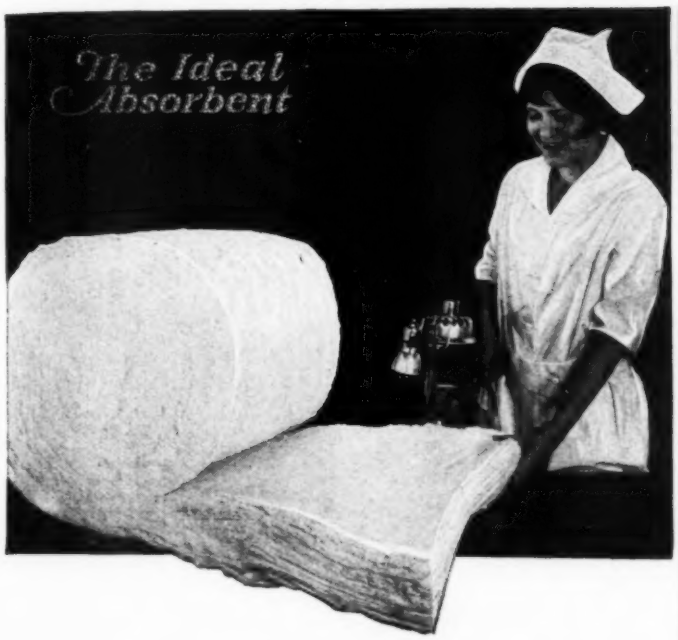
We were never able to accomplish this satisfactorily at Johns Hopkins Hospital until two years ago when the



advent of a new machine made possible the attainment of these most desirable features. We have junked the old type tub cutter. It is no longer necessary to spend hours picking over tray after tray of pats to arrange them for table service. It is impossible to cut perfect pats from the outside edge of the butter when it is packed in tubs. The accumulation of imperfect pats from one tub of butter amounts to approximately six pounds, which is 10 per cent of the net weight. These scraps can be used for cooking only.

A simple foolproof machine, designed by a member of our hospital staff, along lines suggested by Dr. Frank M. Houck, the assistant medical director of this institution, has eliminated this waste and has made it possible to handle the cutting operation in a most sanitary and expeditious manner.

Butter for this machine is put up in cubes of the following dimensions: 4⅞ by 6½ by 13½ inches; each cube weighs approximately twelve pounds. The machine cuts at one time twenty or more pats ready to be served on the table. Thickness of pats may be regulated from ¼ to ½ inch as desired. Four cubes of butter are packed to a box, each wrapped separately in parchment paper, making the net weight between forty-eight and fifty



WHITE ~ FLUFFY HIGHLY ABSORBENT SANISORB

The steadily increasing popularity of Sanisorb can be explained only by the fact that Sanisorb has satisfactorily met every requirement for an absorbent for hospital use.

Sanisorb has not had behind it the high pressure of expensive advertising or merchandising. Its story has been told simply and directly. Practically all of our effort has been placed behind the suggestion that Hospital Superintendents should compare Sanisorb in use with any other absorbent on the market.

We adopted this method because of our faith in the merit of Sanisorb. The constantly increasing number of hospitals in which Sanisorb is being used amply justifies this faith.

If you are not now using Sanisorb send us a small trial order. You will be delighted with the results. The price is no higher than competing brands.

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HOSPITAL SUPPLIES

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A FEW REASONS FOR CHOOSING THIS LIGHT

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2. The emergency features engender a sense of security which dispels all fear of accident through failure of the lighting circuit.
3. It is a pleasure to take care of this light. It requires no attention other than an occasional removal of dust or replacement of a lamp.

   For convenience in cleaning the wired glass protection screen is hinged, giving access to the interior of the lamp without the necessity of removing the entire screen.
4. No glass mirrors or reflectors are used. Everything has been done to make this fixture as durable as possible.

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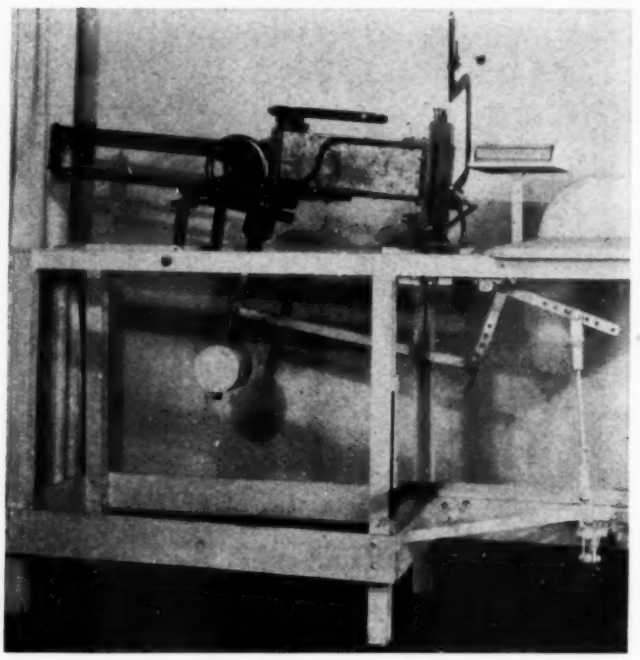
pounds to the box. No difficulty was encountered in securing the cooperation of creameries in packing the cubes described here. These may be bought at the current tub price, which normally figures two cents a pound less than butter put up in one pound prints. Hence, an institution that uses either tub butter or pound prints will effect a substantial saving, both in time and money, through the use of this new machine. Two years of actual uninterrupted operation in this institution has proved this.

From the time the paper is stripped from the cubes until the pats are placed upon the table, there is no reason for the hands to come in contact with either the butter or those parts of the machine through which the butter passes. As the butter is cut it is delivered to the receiving tray upon which a sheet of butter paper has been placed. A margin, of ample size for handling, enables the operator to remove the cut butter from the receiving tray to paper plates or other receptacles for storage. The butter may be cut at the rate of 150 pounds an hour, the product being weighed, stacked and counted as fast as it is cut.



The machine is mounted on a substantial white enameled angled steel frame, electrically welded, and the work table to the right of the cutter is of ample size to take care of the storage of a considerable quantity of butter as it is cut, and before it is placed in the ice box. The entire machine works with counterbalances, there being no springs or intricate mechanism to wear and get out of order. Monel metal or stainless steel is used in the construction of the metal butter chest, the frame which holds the cutting wires and the receiving tray upon which the butter is delivered from the machine. In fact, all parts with which the butter comes in contact are made of these materials. The cutting wires are easily attached and in case of breakage require only a minute or two for replacement. After the day's cutting is completed the machine can be cleaned thoroughly in fifteen minutes.

The illustrations for this article are used with the permission of the designer who has obtained a patent on the machine. They do not illustrate, however, the new machine which will be put on the market shortly; they show the machine which has been in uninterrupted operation here for two years and which is mounted on a wooden table instead of the angled steel stand described.

MIDLAND BABY LOHADOR DISPENSER
PORTABLE TRAY TYPE

This piece of modern nursery equipment is a great help in the care of a number of babies. The Dispenser is easily portable, light in weight and perfectly balanced; it will not tip over. The handle is designed so that if necessary or desirable the Dispenser can be operated with ONE HAND, leaving the other free to guard the infant while lying on table or bed.

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THE PERFECT BABY SOAP

Again Midland purity is expressed in a superlative product. Pure olive oil is its base, a mild mineral free American Potash its saponifying agent. Midland Babeoleum is used in the nurseries of a great number of hospitals with unusual satisfaction to all. Mildness is the first consideration in a soap for this purpose. Midland Babeoleum is a slow cooked soap and is thoroughly filtered after completion. When the entire process is finished it is put into ageing tanks where it stays for six to eight months which removes every trace of harshness and leaves nothing but a pure, mild saponified olive oil which is both skin food and cleanser.

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A Locked Steel Storage Cabinet for Narcotics and Alcohol

A locked steel storage cabinet designed for the storage of narcotics, whisky and alcohol in drug stores and hospitals, where ready accessibility and safety are important, is now being marketed.

These cabinets are made of heavy steel and fitted with special locks and are designed to conform to federal re-

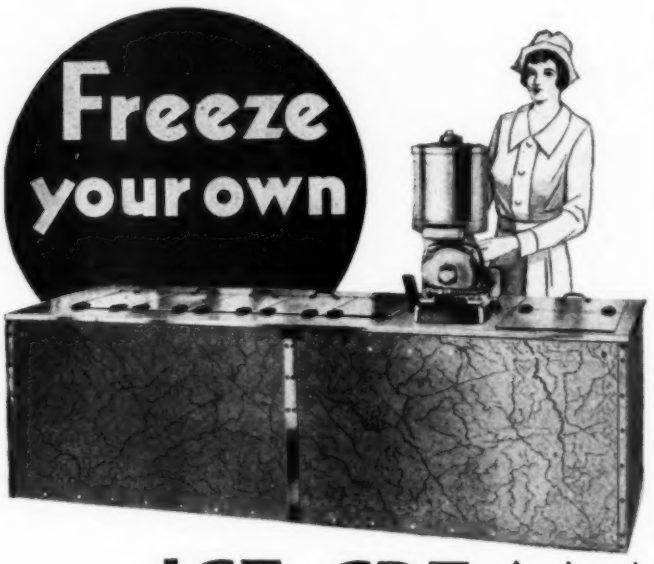
quirements in the retail handling of liquors. Cabinets are offered in three sizes, the smallest having thirteen cubic feet of storage space or room for 180 pint bottles of whisky. Larger sizes have room for as many as thirteen cases. All models have adjustable shelves and are available in dark green baked enamel or wood grain finishes.

How to Clean Linoleum and Composition Floors

Two ways in which composition and linoleum floors may be kept clean are described as follows in *Hotel Management:*

1. With a combination scrubber-polisher. In one institution six scrubbing women have been replaced by an electric floor scrubbing system. This system requires the time of only 2⅓ men and gives better results. It is reported that the installation of this system has resulted in a pay roll saving of $3,120 a year, with no increase in the cost of materials. This system consists of an electric scrubber, a polisher and a water absorber. These units may be used for floor scrubbing, water absorbing, mopping, waxing, polishing, light sanding and refinishing floors and the scrubbing of carpets and rugs.

2. Regular waxing from four to six times a year, depending upon the amount of traffic. This will give the floor a finer appearance, help to preserve it and give it longer life. Wax provides a smooth film over the surface of the linoleum to which dust does not adhere. When



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Simple to operate as a drink mixer—the Taylor Freezer requires no special training. Temperature automatically maintained. No salt or ice is used. There is no fuss or muss. Freezing unit may also be used to make rich malted milks in large quantities at one operation for the afternoon refreshment period.

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THE Taylor FREEZER

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Please send complete information on the Taylor Freezer.

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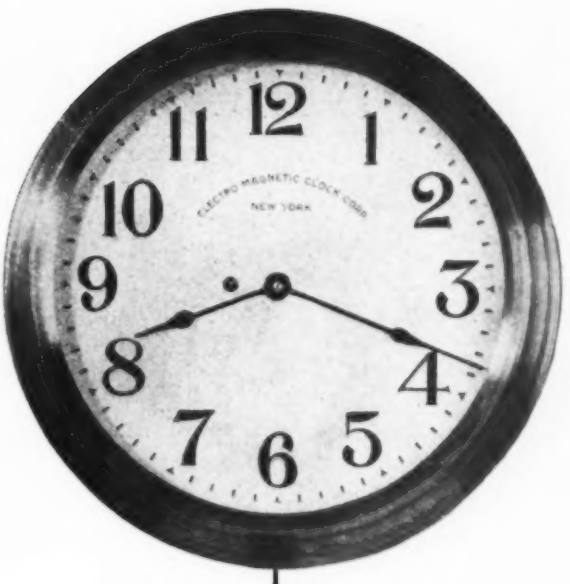
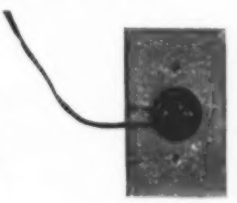


Model 50. Heavy gauge, genuine spun brass case, satin finish (lacquered). Optional finishes — Walnut, Mahogany, Chrome, Nickel. Dial 12". Size of case 15", depth 3". Price $30.00. Net to hospitals $22.50.



Model 25. Same finish as above. Dial 6". Size of case 8½", depth 3". Price $16.00. Net to hospitals, $12.00.

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Exclusively designed for hospital service. Refined and dainty yet substantially constructed for heavy wear. Scientifically rounded interiors assure instant and positive cleanliness. Standard pattern permits additions or replacements at any time.

Pieces shown on the THORNER Service Tray below can be supplied from stock either as sets or separate pieces. Flatware to match.

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linoleum is properly waxed, cleaning becomes only a matter of using a floor brush daily to remove the dust, and, at infrequent intervals, a damp mop.

Regular and strict inspection is absolutely necessary in order to maintain a high standard of cleanliness. If the inspections are irregularly made, employees tend to become lax and to neglect the corners.

Colorful Fibroid Vase Recommended for Institutional Use

A new plastic fibroid container for use wherever cut flowers or plants are displayed has recently been perfected. It is, according to the manufacturers' description, colorful, watertight, decorative, nonfragile, long wearing and low in cost. Standard colors are green, lavender and ivory duotone. Special colors are blue or any stock color with gold or silver spray.

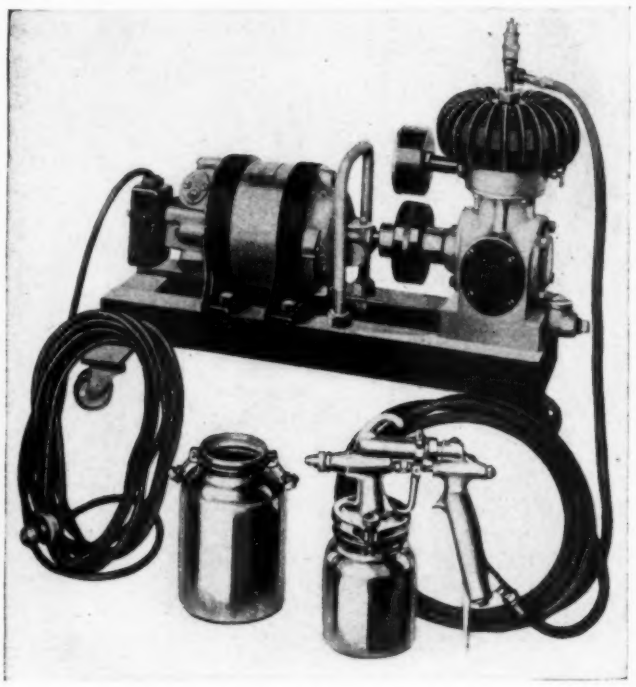
The vases are recommended especially for hospital or institutional use. The vase cannot rust as do metal containers, or "sweat" and mar furniture.

Painting by Means of an All-Electric Portable Spraying Outfit

A new all-round, all-electric portable spraying outfit is announced by its manufacturers.

One of the features of this new outfit is its ability to give high speed application of lead paints, enamels and other heavy materials as well as oil paints, lacquers, shellacs, varnishes and bronzes.

The unique nozzle design atomizes these liquids internally, eliminating excessive fog and mist. A needle valve adjustment, controlled from the trigger, enables the operator to regulate the size of spray and amount of material applied. Or air only may be blown through the gun



to remove dust and foreign matter from the surface about to be sprayed. In addition, the direct drive from motor to compressor, the accurately machined parts and the perfect balancing throughout make the outfit practically noiseless and vibrationless in operation.